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Long-term
Projections Report
OCE-2007-1

February 2007

USDA Agricultural Projections to 2016

Interagency Agricultural Projections Committee

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USDA Long-term Projections



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Abstract

This report provides projections for the agricultural sector through 2016. Projections cover agricultural commodities, agricultural trade, and aggregate indicators of the sector, such as farm income and food prices. The projections are based on specific assumptions regarding macroeconomic conditions, policy, weather, and international developments. The report assumes that there are no shocks due to abnormal weather, further outbreaks of plant or animal diseases, or other factors affecting global supply and demand. The Farm Security and Rural Investment Act of 2002, the Energy Policy Act of 2005, and the Agricultural Reconciliation Act of 2005 are assumed to remain in effect through the projections period. The projections are one representative scenario for the agricultural sector for the next decade. As such, the report provides a point of departure for discussion of alternative farm sector outcomes that could result under different assumptions. The projections in this report were prepared in October through December 2006, reflecting a composite of model results and judgment-based analyses.

Longrun developments for global agriculture reflect increased demand for biofuels, particularly in the United States and the European Union (EU). U.S. agricultural projections reflect large increases in corn-based ethanol production, which affects production, use, and prices of farm commodities throughout the sector. Expansion of biodiesel use in the EU raises demand for vegetable oils in global markets. Additionally, steady domestic and international economic growth in the projections supports gains in consumption, trade, and prices. Although export competition is projected to continue, global economic growth, particularly in developing countries, provides a foundation for gains in world trade and U.S. agricultural exports. Combined with increases in domestic demand, particularly related to growth in ethanol production, the results are generally higher market prices and cash receipts. Rising production expenses and lower government payments offset some of the gains in cash receipts and other sources of farm income, but overall net farm income remains strong through the projections. On average, consumer food prices are projected to rise more slowly than the general rate of inflation over the next decade, although increases in meat prices push food prices up faster in some years.

Keywords: Projections, crops, livestock, ethanol, trade, farm income, food prices.

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Contents

	Page
A Note to Users of USDA Long-term Projections	iii
Long-term Projections on the Internet	iv
Contacts for Long-term Projections.....	iv
Acknowledgments.....	iv
Introduction.....	1
Overview of Assumptions and Results	2
Macroeconomic Assumptions.....	9
Crops	20
Livestock.....	51
U.S. Agricultural Sector Aggregate Indicators:	
Farm Income, Food Prices and Expenditures, and U.S. Trade Value	62
Agricultural Trade.....	71
List of Tables	110

Features in this Report	Page
Economic Growth in Energy-Intensive Economies Underlies Oil Price Projections.....	16
U.S. Biofuel Overview	22
Biofuel Tax Credits and Import Tariffs	24
Livestock Sector Use of Distillers Grains, a Coproduct of Ethanol Production	52
Global Demand for Biofuel Feedstocks	73

A Note to Users of USDA Long-term Projections

USDA's long-term agricultural projections presented in this report are a Departmental consensus on a longrun scenario for the agricultural sector. These projections provide a starting point for discussion of alternative outcomes for the sector.

The scenario presented in this report is not a USDA forecast about the future. Instead, it is a conditional, longrun scenario about what would be expected to happen under a continuation of current farm legislation and specific assumptions about external conditions.

The report uses as a starting point the short-term projections from the November 2006 *World Agricultural Supply and Demand Estimates* report. Critical long-term assumptions are made for U.S. and international macroeconomic conditions, U.S. and foreign agricultural and trade policies, and growth rates of agricultural productivity in the United States and abroad. Normal weather is assumed. Also, the report assumes no further outbreaks of animal or plant diseases. Changes in assumptions for any of these items can significantly affect the projections, and actual conditions that emerge will alter the outcomes.

Historically, projections in prior years' releases of this report have been the same as those used in preparing the President's Budget baseline. However, the President's Budget baseline this year assumes that biofuel blending tax credits and the ethanol import tariff are not extended beyond their currently legislated expiration dates. The projections in this report assume those tax credits and tariff are extended.

The projections analysis was conducted by interagency committees in USDA and reflects a composite of model results and judgment-based analyses. The Economic Research Service has the lead role in preparing the Departmental report. The projections and the report were reviewed and cleared by the Interagency Agricultural Projections Committee, chaired by the World Agricultural Outlook Board. USDA participants in the projections analysis and review include the World Agricultural Outlook Board, the Economic Research Service, the Farm Service Agency, the Foreign Agricultural Service, the Agricultural Marketing Service, the Office of the Chief Economist, the Office of Budget and Program Analysis, the Risk Management Agency, the Natural Resources Conservation Service, and the Cooperative State Research, Education, and Extension Service.

Long-term Projections on the Internet

The Economic Research Service of USDA has a briefing room for long-term projections at:

<http://www.ers.usda.gov/briefing/projections/>

Also, data from the new USDA long-term projections are available electronically at:

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1192>

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USDA Agricultural Projections to 2016

Interagency Agricultural Projections Committee

Introduction

This report provides longrun projections for the agricultural sector through 2016. Projections cover agricultural commodities, agricultural trade, and aggregate indicators of the sector, such as farm income and food prices. This report identifies major forces and uncertainties affecting future agricultural markets; prospects for global long-term economic growth, consumption, and trade; and future price trends, trade flows, and U.S. exports of major farm commodities.

The projections are a conditional scenario with no shocks and are based on specific assumptions regarding the macroeconomy, agricultural and trade policies, the weather, and international developments. The report assumes that the Farm Security and Rural Investment Act of 2002 (the 2002 Farm Act), the Energy Policy Act of 2005, and the Agricultural Reconciliation Act of 2005 remain in effect through the projection period. The projections are not intended to be a Departmental forecast of what the future will be, but instead a description of what would be expected to happen under a continuation of current farm legislation, with very specific external circumstances. Thus, the projections provide a neutral backdrop, reference scenario that provides a point of departure for discussion of alternative farm sector outcomes that could result under different domestic or international assumptions.

Historically, projections in prior years' releases of this report have been the same as those used in preparing the President's Budget baseline. However, the President's Budget baseline this year assumes that biofuel blending tax credits and the ethanol import tariff are not extended beyond their currently legislated expiration dates. The projections in this report assume those tax credits and tariff are extended. (See box, page 24, for further discussion and a comparison of selected results of these alternative scenarios.)

The projections in this report were prepared in October through December 2006 and reflect a composite of model results and judgment-based analyses. Normal weather is assumed. Also, the projections assume no further outbreaks of plant or animal diseases. Short-term projections used as a starting point in this report are from the November 2006 *World Agricultural Supply and Demand Estimates* report.

Overview of Assumptions and Results

Key assumptions underlying the projections include the following:

Economic growth

- World economic growth is projected to increase at a 3.4-percent average annual rate between 2007 and 2016, after averaging 2.9 percent annually in 2001-06. U.S. gross domestic product (GDP) slows over the next several years from 3.4 percent in 2006 toward a sustainable rate of about 3 percent over the longer term. Strong economic growth in developing countries of 5.6 percent annually is projected for 2007-16.

Population

- Growth in global population is assumed to continue to slow to an average of about 1.1 percent per year over the projection period compared with an annual rate of 1.7 percent in the 1980s. Although slowing, population growth rates in most developing countries remain above those in the rest of the world. As a consequence, the share of world population accounted for by developing countries increases to over 83 percent by 2016, up from 82 percent in 2005.

The value of the U.S. dollar

- The U.S. dollar remains relatively strong by historical standards, depreciating slightly in 2008 and then continuing a long-term pattern of slow appreciation through the rest of the projection period. A strengthening U.S. dollar assumes that capital moves into the United States because of well-functioning and diverse financial markets and high expected long-term productivity growth.

Oil prices

- Large increases in oil prices over the past several years reflected strong demand for crude oil resulting from world economic recovery and rapid manufacturing growth in China and India. In 2007 through 2011, crude oil prices are expected to drop modestly and then rise by less than the inflation rate as new crude supplies help offset the rise in demand from Asia. After 2011, oil prices are projected to rise slightly faster than the general inflation rate.
- Underlying these longer term price increases, world oil demand is expected to rise due to strong global economic growth, particularly in highly energy-dependent economies in Asia. Factors expected to constrain longer run oil price increases include new oil discoveries, new technologies for finding and extracting oil, the ability to switch to nonpetroleum fuels, the ability to increase energy efficiency by substituting nonenergy inputs for energy, and continued expansion and improvement in renewable energy.

U.S. agricultural policy

- The 2002 Farm Act, as amended, and the Agricultural Reconciliation Act of 2005 are assumed to continue through the projection period.
- Area enrolled in the Conservation Reserve Program (CRP) is assumed to decline through 2009 as high prices encourage the return of some land to production when CRP contracts expire. CRP acreage is then assumed to gradually rise to its legislated maximum of 39.2 million acres by the end of the projections, with higher CRP rental rates.

U.S. biofuels

- The Renewable Fuel Program of the Energy Policy Act of 2005 mandates that renewable fuel use in gasoline (with credits for biodiesel) reach 7.5 billion gallons by calendar year 2012. The legislation also contributed to the elimination of methyl tertiary butyl ether (MTBE) as a gasoline additive. The projections in this report assume the tax credits available to blenders of biofuels (ethanol and biodiesel) and the ethanol import tariff remain in effect through the projection period. These factors, along with relatively high prices for oil, contribute to favorable returns for ethanol production, providing economic incentives for a continued strong expansion in the production capacity of that industry over the next several years, primarily produced from corn. As a result, over 12 billion gallons of ethanol are assumed to be produced annually in the United States by the end of the projections. Biodiesel production is assumed to increase to 700 million gallons in 2011/12 and then level off.

Cattle and beef trade

- The projections assume a gradual rebuilding of U.S. beef exports to Japan and South Korea. Canada's exports of live cattle to the United States are assumed to remain limited to steers and heifers under 30 months old for immediate slaughter and Canadian feeder cattle that enter U.S. feedlots and are slaughtered before reaching 30 months of age.

International policy

- Trade projections assume that countries comply with existing bilateral and multilateral agreements affecting agriculture and agricultural trade. The report incorporates effects of trade agreements and domestic policy reforms in place in November 2006.
- Domestic agricultural and trade policies in individual foreign countries are assumed to continue to evolve along their current path, based on the consensus judgment of USDA's regional and commodity analysts. In particular, economic and trade reforms underway in many developing countries are assumed to continue.
- The European Union (EU) expanded from 25 to 27 countries with the accession of Romania and Bulgaria on January 1, 2007. EU projections in this report pertain to the EU-25. Romania and Bulgaria are included in the Other Europe region, although adjustments were made to account for accession.

International biofuels

- The production of biofuels is experiencing rapid growth in a number of countries. The projections assume that the most significant increases in foreign biofuel production over the next decade will be in the EU, Brazil, Argentina, and Canada. In particular, the projections assume that the EU biofuel target of 5.75 percent of total transportation fuel use by 2010 is only partially met by that date, and is still not fully reached by 2016.

Key results in the projections include the following:

Steady domestic and international economic growth in the projections supports gains in consumption, trade, and prices of agricultural products. Additionally, the projections reflect increased demand for biofuels, particularly in the United States and the EU.

U.S. aggregate indicators

- Net farm income is projected to be relatively strong during the projection period, averaging about \$67 billion. Increases in corn-based ethanol production provide a major impetus for this strong income projection. Growth in export demand also contributes to increases in agricultural commodity prices and gains in farm cash receipts. Higher commodity prices lower government payments for price-dependent benefits, although annual CRP payments increase. Rising production expenses and lower government payments offset some of the gains in cash receipts and other sources of farm income. With lower government payments, the agriculture sector relies increasingly on the market for its income. Cash receipts represent about 90 percent of gross cash income during most of the projection period, up from about 85 percent in 2005. Strong and stable net farm income assists in asset accumulation and debt management. The debt-to-asset ratio falls moderately in the projections, continuing a generally declining trend since the mid-1980s.
- The value of U.S. agricultural exports rises in the projections as steady global economic growth and stronger world trade lead to gains for U.S. agricultural export volumes and higher commodity prices. Higher commodity prices due to expansion of global biofuel demand also contribute to the gains in export values. Increases in U.S. consumer income and demand for a large variety of foods underlie growth in U.S. agricultural imports.
- On average, consumer food prices are projected to rise more slowly than the general rate of inflation over the next decade, although increases in meat prices push food prices up faster in some years. Consumer expenditures for food away from home continue to grow in importance and account for more than half of overall food spending during most of the projection period.

Commodity price relationships

- During the next 3-4 years, rapid expansion in global production of biofuels changes the price relationships among various agricultural commodities. Increased demand for grain (especially corn) used to produce ethanol in the United States raises the price of corn

relative to prices for other grains and soybeans, although prices for those crops also rise, buoyed by acreage adjustments and production changes and/or by their feed value as a replacement for corn.

- Expansion of biodiesel production globally results in prices for vegetable oils rising in comparison to prices for oilseeds and protein meals as more of the crush value of oilseeds derives from the oil. As a consequence, prices of protein feeds (such as soybean meal) rise relatively less than prices of feedstuffs used primarily as a source of energy (such as corn).
- Prices of poultry and pork in the United States rise relative to the price of beef because cattle can more effectively use the increasing supply of distillers grains, a coproduct of dry mill ethanol production. Corn, needed for broilers and swine, becomes more expensive while distillers grains, used for cattle, become more abundant and relatively less expensive.

U.S. agricultural commodities

- Strong expansion of corn-based ethanol production in the United States affects virtually every aspect of the field crops sector, ranging from domestic demand and exports to prices and the allocation of acreage among crops. Overall plantings expand and a higher portion of the total is planted to corn. Higher feed costs and the increased availability of distillers grains also affect the livestock sector.
- Corn used to produce ethanol in the United States continues strong expansion through 2009/10, with slower growth in subsequent years. By the end of the projections, ethanol production exceeds 12 billion gallons per year, using more than 4.3 billion bushels of corn. The projected large increase in ethanol production reflects the Energy Policy Act of 2005, the elimination of use of MTBE as a gasoline additive, ongoing ethanol plant construction, and economic incentives provided by continued high oil prices. Feed use of corn declines in the initial years of the projections and then rises only moderately as increased feeding of distillers grains helps meet livestock feed demand, particularly for beef cattle.
- Growth in the food use of wheat is projected to be somewhat slower than the rate of population increases, reflecting dietary adjustments by some consumers. Feed use of wheat rises sharply in the initial years of the projections as higher corn prices encourage increases in wheat feeding, particularly in the summer quarter. As corn prices fall, wheat feeding declines after 2010/11 due to relatively higher wheat prices compared with corn.
- Soybean acreage falls in the projections as more favorable returns to corn production draw land from soybeans. Longrun growth in domestic soybean crush is mostly driven by increasing demand for domestic soybean meal for livestock feed. Some gains in crush also reflect increasing domestic soybean oil demand for biodiesel production through 2011/12.
- Mill use of upland cotton in the United States falls in the projections as U.S imports of apparel continue to increase, reducing domestic apparel production and lowering the apparel industry's demand for fabric and yarn produced in the United States.

- Slow expansion of domestic food use of rice is projected. Growth is only slightly faster than population growth, well below the rates of growth in the 1980s and 1990s when per capita use rose rapidly.
- The sugar projections assume the elimination of Mexico's soft drink and distribution taxes, resulting in higher levels of use of high fructose corn syrup by Mexico's beverage industry and higher exports of sugar from Mexico to the United States.
- The tobacco sector continues to adjust to the ending of the U.S. tobacco marketing quota and price support program. After declining in 2005 when nearly half of tobacco producers exited the industry, tobacco leaf production increases in the projections as many remaining growers expand operations. Declining cigarette consumption in the United States is an important factor underlying projected decreases in domestic use of tobacco leaf. Exports of tobacco leaf are projected to increase moderately.
- The production value of U.S. horticultural crops is projected to grow by 2.5 percent annually over the next decade. Consumption of horticultural products continues to rise in the projections. Imports play an important role in domestic supply during the winter and, increasingly, during other times of the year, providing U.S. consumers with a larger variety of horticultural products.
- Production of all meats slows or declines in the first half of the projections, reflecting higher feed costs and lower producer returns as more corn is used in the production of ethanol. After those productions adjustments, strong domestic demand and some strengthening in meat exports result in higher prices and higher returns, providing economic incentives for expansion in the sector. How the sector adjusts to the increased availability of distillers grains will also be important.
- Per capita meat consumption declines in the first half of the projections as the sector lowers overall production, but then rebounds somewhat in subsequent years. Rising incomes facilitate gains in consumer spending on meat. Nonetheless, overall meat expenditures represent a declining proportion of disposable income.
- Productivity gains are expected to boost milk output per cow and total milk production, although some slowing in these increases occurs early in the projection period due to higher feed costs. Milk cow numbers are expected to decline after 2006, particularly in 2008-10 as feed costs rise.

Agricultural trade

- Population and income are two important factors underlying global demand for food and agricultural products, world trade, and U.S. exports. With population growth in the world continuing to slow in the projections compared with previous decades, income growth becomes a relatively more important factor underlying strengthening food and agricultural demand. Economic growth in developing countries is especially important because consumption of food and feed are particularly responsive to income growth in those countries, with movement away from staple foods and increased diversification of diets.

- Increases in global demand for food and agricultural products provide the foundation for gains in agricultural trade and U.S. exports. The United States will remain competitive in global agricultural markets, although trade competition will continue to be strong. Expanding production in a number of countries, including Brazil, Argentina, Canada, Ukraine, and Russia, provides competition to U.S. exports for some agricultural commodities. A strengthening U.S. dollar assumed in the projections also is a constraining factor for U.S. agricultural competitiveness and export growth in the longer run. Nonetheless, increases in exports contribute to gains in cash receipts for U.S. farmers.
- Steady longrun growth in the livestock sectors of developing countries in Asia, Latin America, North Africa, and the Middle East accounts for most of the growth in world coarse grain imports projected during the next decade. The United States is the major corn exporter in the world. However, with increasing use of corn for U.S. ethanol production, particularly over the next several years, U.S. corn exports show very little growth through 2010/11 and prices rise. In response, increased corn production and exports are assumed for Argentina, Bulgaria, Romania, Ukraine, Republic of South Africa, and Brazil. China is also assumed to increase corn production, which changes its net corn trade by slowing the decline in its exports and the increase in its imports. Nonetheless, China is projected to become a net importer of corn in the longer run, reflecting declining stocks of grain and increasing demand for feed for its growing livestock sector.
- Vegetable oil prices rise relative to prices for oilseeds and protein meals because of expanding biodiesel production in a number of countries. This relatively new source of oilseed products demand amplifies already rising uses of vegetable oils for food consumption and protein meals for livestock production in developing countries, resulting from strong income and population growth. Brazil's rapidly increasing soybean area enables it to gain a larger share of world soybean and soybean meal exports, despite increasing domestic feed use. Argentina is the leading exporter of soybean meal and soybean oil, reflecting the country's large and growing crush capacity, its small domestic market for soybean products, and an export tax structure that favors exports of soybean products rather than soybeans. The former Soviet Union, Eastern Europe, and Southeast Asia increase rapeseed and palm oil production for use as biodiesel feedstocks.
- The United States, Australia, the EU, Canada, and Argentina have historically been the primary exporters of wheat, although exports from the Black Sea region have grown in the past 10 years. Over the next decade, Russia and Ukraine are projected to have a growing importance in world wheat trade, reflecting low costs of production and continued investments in their agricultural sectors. However, high year-to-year volatility in these countries' production and trade can be expected due to weather extremes and related yield variation.
- Cotton consumption and textile production are projected to increase in countries where labor and other costs are low, such as China, India, and Pakistan. China is the largest importer of cotton in the world. Although China's cotton imports are expected to grow more slowly than the rapid gains since 2001, these increases account for the gains in global cotton trade in the projections. The United States continues as the world's leading cotton exporter, reflecting its large production capacity and its reduced domestic mill use of cotton as textile imports continue to grow.

- Long-grain varieties of rice account for around three-fourths of global rice trade and are expected to account for the bulk of trade growth over the next decade. Long-grain rice is imported by a broad spectrum of countries in South and Southeast Asia, much of the Middle East, nearly all of Sub-Saharan Africa, and most of Latin America. Thailand, Vietnam, India, and the United States remain the world's largest rice-exporting countries.
- U.S. meat exports benefit from strong foreign economic growth. Although U.S. beef exports to Japan and South Korea are projected to gradually rebuild, total U.S. beef exports do not return to the levels attained prior to the first U.S. case of bovine spongiform encephalopathy (BSE) in December 2003.
- Mexican pork imports rise rapidly, driven by increases in income and population. Higher income countries of East Asia increase pork imports as their domestic hog sectors are constrained by environmental concerns and high imported feed costs. Brazil continues to be a major pork exporter, although the presence of foot-and-mouth disease in Brazil limits Brazilian pork exports to some markets.
- Avian influenza is assumed to not significantly affect overall consumer demand for poultry. However, poultry exports from countries affected by the disease, such as Thailand and China, are expected to be limited to fully cooked products. Brazil remains a leading poultry exporter as low production costs allow the Brazilian poultry sector to remain competitive in global trade.

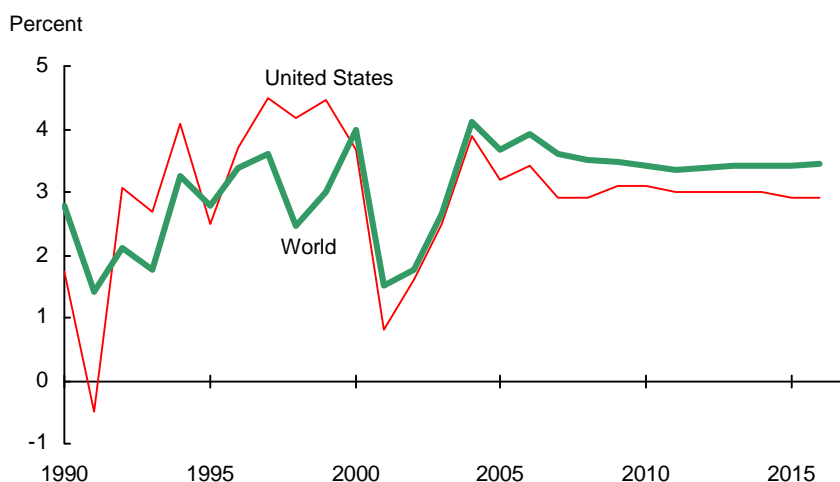
Macroeconomic Assumptions

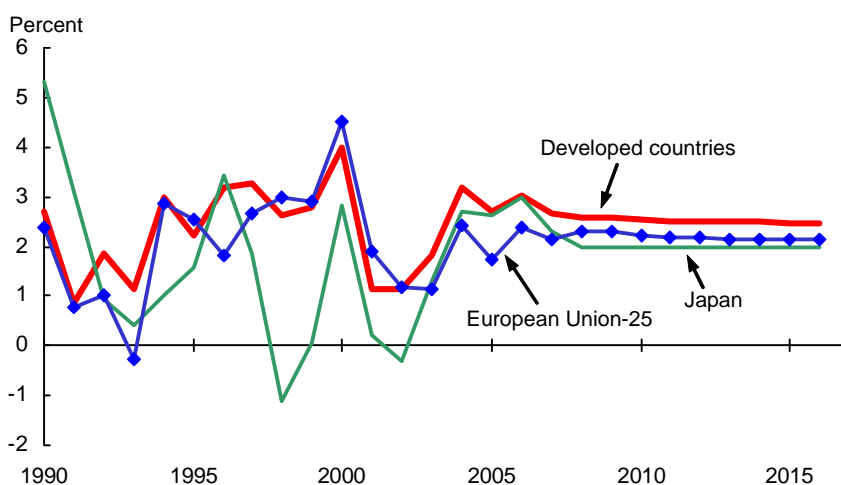
Macroeconomic assumptions underlying USDA's long-term projections reflect steady growth at near-average historical rates over most of the projection period. Most of the world will be moving toward longrun sustainable economic growth, with trend rates in 2008 and beyond. Overall, world economic growth is projected to increase at a 3.4-percent average rate between 2007 and 2016, after averaging below 3 percent annually between 2001 and 2006. The projections have moderating growth in developed countries and accelerating growth in developing and former Soviet Union countries. Ongoing computing and telecommunications advances support worldwide productivity gains throughout the projections.

U.S. gross domestic product (GDP) growth slows over the next several years from 3.4 percent in 2006 toward a sustainable rate of about 3 percent over the longer term. Nonetheless, the United States continues to maintain its share of global GDP at around 30 percent. While the United States plays a large role in determining economic conditions around the world, strong growth in China and in India are becoming increasingly important.

Improved global economic performance and continuing, although slowing, population growth are expected to boost food demand in the projections. Increased global purchasing power and population growth, competing against demand for biofuels and other domestic uses, are important factors shaping the projections for U.S. agricultural exports.

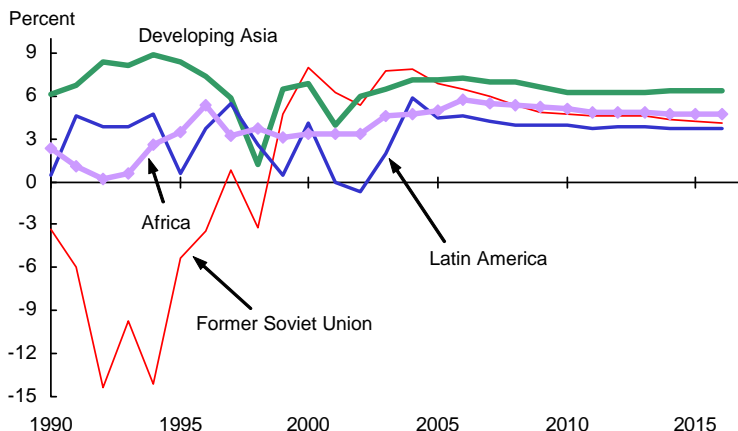
U.S. and world gross domestic product (GDP) growth



GDP growth for developed countries, European Union-25, and Japan

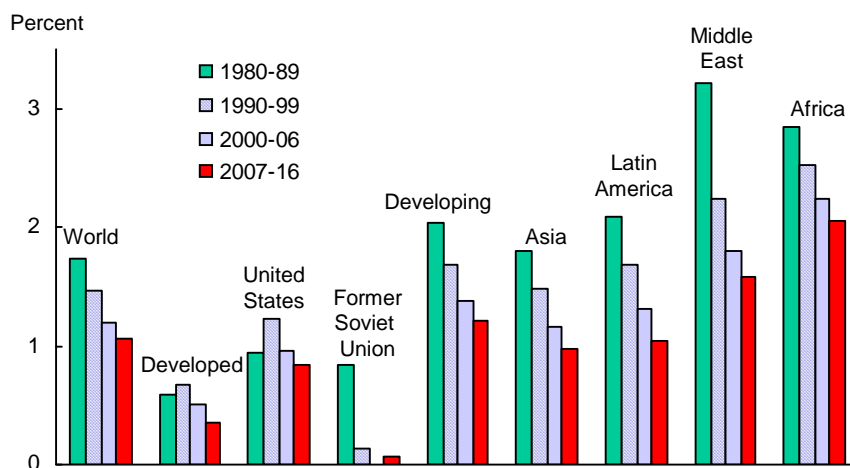
Developed economies are projected to grow at rates similar to those of the 1990s, averaging around 2.5 percent in 2007-16. European and Japanese growth increases from recent levels, but remains around 2 percent per year in the projection period.

- Enlargement of the European Union (EU) to include more countries of Central and Eastern Europe creates additional trade and investment opportunities within the expanded EU. The EU economy, however, does not grow as rapidly as the U.S. economy because of lingering EU structural rigidities, particularly rigid labor laws and a very expensive social security system. Political difficulties also constrain the benefits of economic integration, particularly with continued restrictions on labor mobility between EU countries and a very cumbersome EU decisionmaking process.
- Japan continues to face constraints to economic growth, largely the result of long-term structural rigidities, a difficult political process of economic reform, and a rapidly aging population. Japan's labor market liberalization partly offsets these constraints, aiding productivity growth. The projections assume sustained economic growth in Japan at 2 percent a year, with the country's share of world GDP declining to around 12 percent by 2016, down from almost 18 percent in 1991.

GDP growth for developing economies and the former Soviet Union

Economic growth in developing countries is projected to average 5.6 percent annually in 2007-16. Developing countries will play an increasingly important role in global growth in food demand and will become a more important destination for U.S. farm exports. Relatively high income growth, along with large responsiveness of consumption and imports of food and feed to income growth in these countries, underlies this result. As incomes rise in developing countries, consumers generally diversify their diets, moving away from staple foods to include more meat, fruits, vegetables, and processed foods (including vegetable oils). These consumption shifts increase import demand for feedstuffs and high-value food products.

- Long-term growth of 3.9 percent is projected for Latin America. An overall improvement in macroeconomic policies should attract foreign capital inflows, particularly foreign direct investment, and sustain growth.
- Projected growth for Southeast Asia exceeds 5 percent for the next decade while growth in developing countries of East Asia exceeds 7 percent. Although large, these projected growth rates are below the very strong average economic growth in these regions in 1971-2006.
- China's economic growth has been consistently the strongest in Asia, exceeding 10 percent between 2003 and 2006. While some slowing is expected, China's growth is expected to average above 8 percent over the next decade, despite problems with the structure of the banking system.
- India's projected average economic growth of around 7 percent a year puts it in the top tier of high-growth countries. Nonetheless, India is still a low-income country, with real 2000-based per capita income around \$600 in 2006. Continued high income growth is expected to bring India's real per capita income to more than \$1,000 by 2016 and is expected to move a significant number of people out of poverty.
- High oil prices assumed in the projections modestly constrain Asia from even higher economic growth since its manufacturing sector is far more dependent on energy for GDP growth than more developed economies.
- Economic growth in the countries of the former Soviet Union (FSU) is projected to average almost 5 percent annually for the next decade. Russia, Ukraine, and other FSU countries benefit greatly from their shift to more market-oriented economies. Russia and the other oil-rich FSU countries also benefit from high oil prices.

Population growth 1/

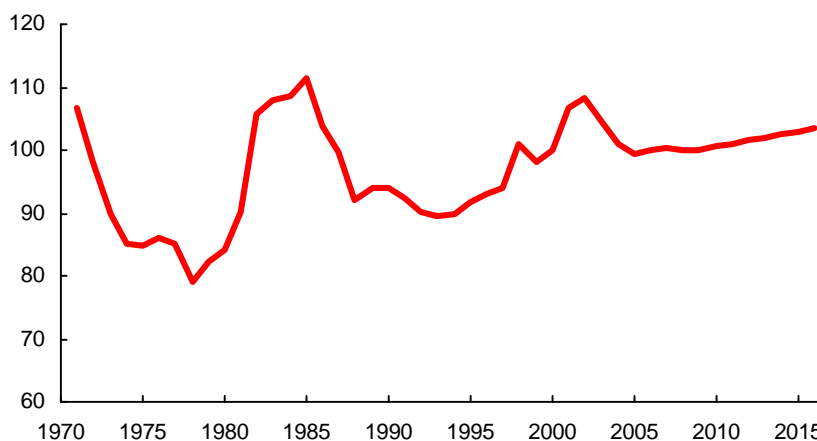
1/ Population projections from the U.S. Department of Commerce, Census Bureau.

A continued slowing of population growth around the world is an important factor limiting increases in food and agricultural demand over the next decade. World population growth declines from an annual rate of 1.7 percent in the 1980s to an average of about 1.1 percent per year for the projection period.

- Developed and FSU countries have very low projected rates of population growth, at 0.4 percent and 0.1 percent, respectively. The projected annual average population growth rate for the United States is the highest among developed countries, at 0.9 percent, in part reflecting large immigration. Population growth rates in developing economies decline by more than 40 percent between the 1980s and the end of the projection period, but remain above those in developed countries and the FSU. As a result, the share of world population accounted for by developing countries increases to 83 percent by 2016.
- China and India together account for more than one-third of the world's population. China's population growth rate slows from 1.5 percent per year in 1981-90 to 0.6 percent in 2007-16. The population growth rate in India, the world's second most populous nation, is projected to decline from 2.1 percent to 1.3 percent per year between the same periods. This growth narrows the gap between India's and China's populations.
- Brazil's population growth rate falls from 2.1 percent per year in 1981-90 to 0.9 percent annually in 2007-16. Sub-Saharan Africa's population growth rate declines from 2.9 percent to 2.2 percent per year over the same period, leaving this impoverished region with the highest population growth rates in the world, on average.
- There are a number of countries with declining populations. Most of these are mature economies such as Japan and countries in Western Europe, Central Europe, and the FSU. However, several countries in Sub-Saharan Africa have declining populations resulting from the devastating impacts of the AIDS epidemic, including the Republic of South Africa, Botswana, Lesotho, and Swaziland.

U.S. agricultural trade-weighted dollar projected to strengthen 1/

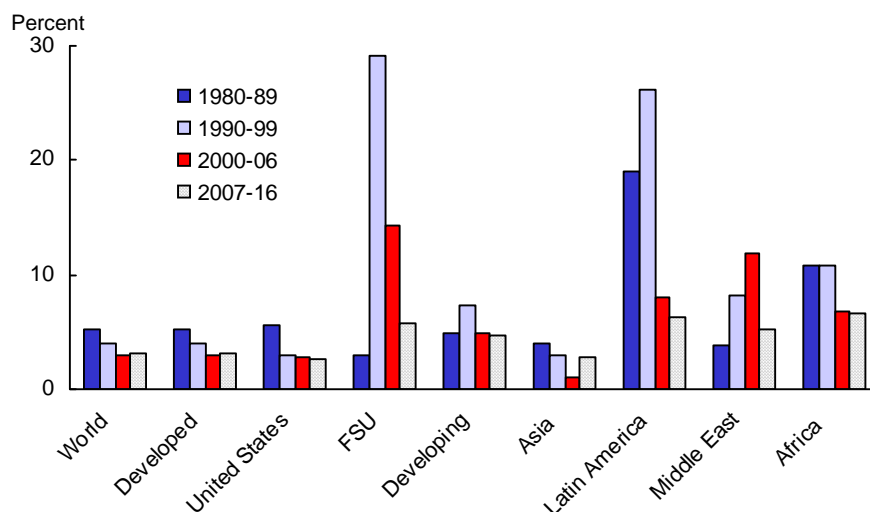
Index values, 2000=100



1/ Real U.S. agricultural trade-weighted dollar exchange rate, using U.S. agricultural export weights.

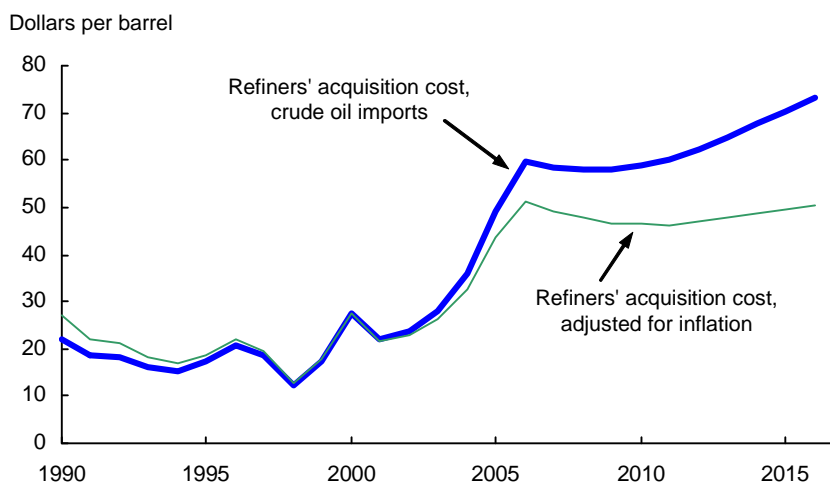
The U.S. dollar remains relatively strong in the projections by historical standards, depreciating slightly in 2008 and then continuing a long-term pattern of slow real appreciation. The relatively high real exchange rate—expressed in this report as local currency per U.S. dollar, in inflation-adjusted terms—will be a constraining factor on the growth in U.S. exports. Nonetheless, strong long-term economic growth, particularly in developing countries, will result in an overall increase in the demand for U.S. farm exports.

- Strong GDP growth in the United States relative to the EU and Japan strengthens the dollar relative to the euro and offsets much of the trade-driven appreciation of the yen.
- The U.S. dollar stays strong because capital moves into the United States to benefit from well-functioning and diverse financial markets, a relatively risk-free environment, transparent financial accounting standards, and high expected long-term productivity growth and corporate profitability. The dollar also stays high because developing countries that pursue export-led economic growth strategies often use fiscal and monetary policies that tend to produce depreciating currencies.
- Among agricultural products, U.S. exports of bulk commodities and horticultural products tend to be the most sensitive to a strong U.S. dollar, because they face relatively more global trade competition.
- China initiated a process for appreciating its currency in 2005 after a long period of an undervalued exchange rate and substantial political pressure from its trading partners. To date, the appreciation has been limited to 5-6 percent. This compares with most estimates of undervaluation of at least 30 to 40 percent. The projections assume that China allows its real exchange rate to slowly appreciate. The appreciation of the yuan also leads to appreciation in other Asian currencies.

Inflation rates

Global inflation rates are projected to remain relatively low through 2016.

- The U.S. and world economies are moving into a steady growth phase of the business cycle. Some inflationary pressures have begun as a result of energy price increases and the movement towards full employment and full capacity utilization. In response, the U.S. Federal Reserve Board and central banks in other countries have increased short-term interest rates aggressively to constrain inflation, and are assumed to continue such policies in the projection period.
- While inflation in the United States and the world exceeded 3 percent in 2005 and 2006, a modest reduction in inflation is assumed in the projections. U.S. inflation as measured by the Consumer Price Index is projected at about 2.5 percent, while global inflation is around 3 percent.
- Inflation rates in developing countries are projected to fall from 7 percent to under 5 percent. Inflation in Asia declines to rates comparable to those in developed countries. Rates in Latin America, Africa, and the Middle East, while declining, will remain substantially above inflation rates in the rest of the world.
- In the FSU, inflation rates come down from the high transition rates of the 1990s to an average projected to be below 5 percent.
- Relatively low inflation rates will keep nominal interest rates from moving to the high levels seen in the 1980s. However, as world economies grow more rapidly, demand for credit will rise and further boost interest rates over the longer term. In addition, long-term U.S. interest rates rise in the short run to continue financing the current account deficit.

Crude oil prices

Crude oil prices rose sharply from late 2002 through 2006, largely reflecting increased crude oil demand due to a robust world economic recovery and rapid manufacturing growth in China and India. In 2007 through 2011, crude oil prices are expected to drop modestly and then rise less than the inflation rate as new crude supplies help offset the rise in demand from Asia. After 2011, oil prices are projected to rise slightly faster than the general inflation rate, reflecting rising world oil demand, due to strong global economic growth, particularly in highly energy-dependent economies in Asia (see box, page 16).

Partly offsetting those effects, factors expected to constrain longrun increases in oil prices include:

- The ability to switch to nonpetroleum fuels, such as coal and natural gas, especially in industrial uses and electric power generation;
- Increasing energy efficiency due to the substitution of nonenergy inputs (such as microchip-driven equipment) for energy as well as improved energy-use technology;
- Continued expansion and improvement in renewable energy, such as wind and water power, thermal energy, solar power, and biofuels;
- Continued extraction of fossil fuels from unconventional sources such as oil shale and tar sands; and
- New oil discoveries, along with new technologies for finding and extracting oil.

Oil prices have historically affected prices of natural gas and nitrogen-based fertilizer. However, the links between the oil and natural gas markets have weakened significantly due to dramatic growth in the demand for natural gas and deregulation throughout the natural gas supply and demand system. At the same time, fertilizer imports have become more important in domestic supply. Prices for natural gas and nitrogen-based fertilizer have become somewhat more volatile than prices for oil, largely because natural gas is less transportable and, as a result, its supply is more inelastic. Nevertheless, over a longer period of time, oil and natural gas prices are expected to move more closely together as the United States and other natural gas importers develop the capacity to import more liquefied natural gas.

Economic Growth in Energy-Intensive Economies Underlies Oil Price Projections

Strong economic growth in highly energy-dependent economies in Asia, including China, India, and other rapidly growing Asian economies, is a major factor pushing oil prices higher in the projections. Reductions in energy intensity in these economies are expected, however.

Most of China's energy is from coal, but as consumer incomes and automobile demand grow, an increasing share of its energy use will be petroleum. China has become increasingly efficient in energy use over the past 25 years, reducing its energy intensity by over 50 percent since the 1980s (based on a measure of energy used to produce a dollar's worth of GDP, from the Department of Energy's Energy Information Administration). Nonetheless, even with this improvement, China's energy intensity is over four times as high as that of the United States. China's energy intensity is expected to decline further with the adoption of more energy-efficient manufacturing technology and rapid growth of the less-energy-intensive service sector.

The energy intensity of India's economy rose in the 1980s, but has fallen more than 15 percent since the early 1990s. Although less energy-intensive than China's economy, India uses more than two and a half times as much energy as the United States to produce a dollar's worth of GDP. As India continues to develop its infrastructure, especially the highway system and electric power grid, energy intensity is expected to rise.

The rapidly growing and newly industrialized East and Southeast Asian economies of Taiwan, South Korea, Malaysia, Hong Kong, Singapore, and Thailand have become more energy-intensive since the 1980s. Energy used to produce a dollar of GDP has risen by about 15 percent compared with the 1980s, and is now about 50 percent more than in the United States. Taiwan and South Korea have been leaders in developing Asia in reducing their energy intensity. Reductions in their energy intensity are expected as more efficient manufacturing technology is adopted and their service sectors continue to grow rapidly.

Table 1. U.S. macroeconomic assumptions

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP, billion dollars												
Nominal	12,456	13,279	13,992	14,729	15,519	16,352	17,213	18,120	19,074	20,078	21,115	22,206
Real 2006 chained dollars	11,049	11,424	11,756	12,096	12,471	12,858	13,244	13,641	14,050	14,472	14,892	15,323
percent change	3.2	3.4	2.9	2.9	3.1	3.1	3.0	3.0	3.0	3.0	2.9	2.9
Disposable personal income												
Nominal (billions)	9,036	9,560	10,110	10,681	11,269	11,888	12,542	13,232	13,960	14,728	15,538	16,392
percent change	5.8	5.8	5.8	5.7	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Nominal per capita, dollars	30,457	31,934	33,468	35,047	36,652	38,334	40,097	41,942	43,874	45,896	48,016	50,237
percent change	3.1	4.9	4.8	4.7	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Real (billion 2000 chained)	8,105	8,308	8,573	8,848	9,122	9,405	9,696	9,997	10,307	10,626	10,956	11,295
percent change	1.2	2.5	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Real per capita, 2000 dollars	27,319	27,750	28,382	29,031	29,670	30,326	30,999	31,688	32,393	33,116	33,857	34,617
percent change	0.2	1.6	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Consumer spending												
Real (billion 2000 chained)	7,841	8,069	8,319	8,560	8,808	9,064	9,326	9,597	9,875	10,162	10,446	10,739
percent change	3.5	2.9	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8
Inflation measures												
GDP price index, chained	112.7	116.2	119.0	121.8	124.4	127.2	130.0	132.8	135.8	138.7	141.8	144.9
percent change	3.0	3.1	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
CPI-U, 1982-84=100	195.3	202.1	207.6	213.0	218.3	223.7	229.3	235.1	240.9	247.0	253.1	259.5
percent change	3.4	3.5	2.7	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PPI, finished goods 1982=100	155.7	161.0	164.7	167.4	169.7	172.1	174.5	176.9	179.4	181.9	184.5	187.0
percent change	4.9	3.4	2.3	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
PPI, crude goods 1982=100	182.2	183.3	184.0	184.6	186.4	188.3	190.2	192.1	194.0	196.0	197.9	199.9
percent change	14.6	0.6	0.4	0.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Crude oil price, \$/barrel												
Refiner acq. cost, imports	48.9	59.0	57.7	57.5	58.0	59.0	60.0	62.4	64.9	67.6	70.3	73.1
percent change	36.0	20.5	-2.2	-0.3	0.9	1.7	1.7	4.0	4.0	4.0	4.0	4.0
Real 2000 chained dollars	43.4	50.7	48.5	47.2	46.6	46.4	46.2	47.0	47.8	48.7	49.6	50.5
percent change	32.0	16.9	-4.5	-2.5	-1.3	-0.5	-0.5	1.8	1.8	1.8	1.8	1.8
Labor compensation per hour												
nonfarm business, 92=100	162.7	170.5	177.7	183.7	190.0	196.4	203.1	210.0	217.1	224.5	232.2	240.1
percent change	4.4	4.8	4.2	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Interest rates, percent												
3-month T-bills	3.2	4.7	5.1	5.5	5.5	5.6	5.6	5.6	5.6	5.6	5.6	5.6
3-month commercial paper	3.4	5.1	5.4	5.8	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Bank prime rate	6.2	8.0	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Treasury bonds (10-year)	4.3	4.9	5.5	5.6	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Moody's Aaa bonds	5.2	5.7	6.4	6.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Civilian unemployment												
rate, percent	5.1	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Nonfarm payroll emp., millions	133.5	135.3	137.1	138.6	140.1	141.5	142.9	144.4	145.8	147.3	148.7	150.2
percent change	1.5	1.4	1.3	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total population, million												
percent change	296.7	299.4	302.1	304.8	307.4	310.1	312.8	315.5	318.2	320.9	323.6	326.3
percent change	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8

Domestic macroeconomic assumptions were completed in October 2006.

Table 2. Global real GDP growth assumptions

Table 2: Global Real GDP growth assumptions											
Region/country	Share of world GDP 2001-2005	Per capita income, 2006	2005	2006	2007	2008	2009	2010	Average		
									1991-2000	2001-2006	2007-2016
	Percent								Percent change		
World	100.0	5,786	3.6	3.8	3.5	3.5	3.5	3.4	2.8	2.9	3.4
less United States	69.3	4,209	3.7	4.0	3.7	3.7	3.6	3.5	2.7	3.0	3.6
North America	32.9	37,388	3.3	3.4	2.9	2.9	3.1	3.1	3.3	2.6	3.0
Canada	2.3	25,731	4.6	3.2	2.8	2.9	2.9	2.9	3.1	3.0	2.9
United States	30.7	38,681	3.2	3.4	2.9	2.9	3.1	3.1	3.3	2.6	3.0
Latin America	6.3	4,293	4.5	4.6	4.2	4.0	4.0	3.9	3.5	2.8	3.9
Caribbean & Central America	0.6	3,090	2.9	3.8	3.5	3.8	4.0	4.0	4.0	3.0	3.8
Mexico	1.8	6,215	3.8	3.9	3.8	3.6	3.5	3.5	3.7	2.4	3.5
South America	3.9	4,007	5.1	5.0	4.5	4.2	4.2	4.1	3.3	2.9	4.0
Argentina	0.8	8,403	9.2	7.0	5.9	5.1	4.8	4.7	4.7	3.1	4.7
Brazil	1.9	3,690	2.3	3.5	4.0	4.0	4.0	3.8	2.8	2.4	3.7
Other	1.2	3,222	6.7	5.7	4.4	3.9	4.0	4.2	3.2	3.7	4.1
Europe	27.3	18,699	1.8	2.4	2.2	2.3	2.3	2.2	2.1	1.8	2.2
European Union-25	25.7	20,201	1.7	2.4	2.2	2.3	2.3	2.2	2.2	1.8	2.2
Other Europe	1.6	8,601	2.7	3.2	2.5	2.5	2.5	2.3	1.4	2.3	2.3
Former Soviet Union	1.3	1,860	6.9	6.5	6.0	5.3	4.9	4.7	-4.1	6.7	4.7
Russia	0.9	2,594	6.4	6.0	5.2	4.5	4.1	4.0	-3.6	6.1	4.2
Ukraine	0.1	997	2.6	3.0	5.0	6.0	6.0	5.5	-7.7	6.9	4.9
Other	0.2	1,148	11.0	10.0	9.1	7.8	7.3	6.9	-3.6	9.1	6.5
Asia and Oceania	27.7	2,952	4.8	5.1	4.7	4.6	4.5	4.4	3.3	3.9	4.5
East Asia	22.2	5,538	4.6	5.0	4.5	4.4	4.2	4.1	3.0	3.6	4.3
China	4.6	1,579	10.1	9.9	9.8	9.8	8.7	8.0	10.5	9.6	8.4
Hong Kong	0.5	31,071	7.3	6.4	6.0	5.6	5.5	5.3	4.5	4.6	5.2
Japan	14.3	40,906	2.6	3.0	2.3	2.0	2.0	2.0	1.4	1.6	2.0
Korea	1.7	13,767	4.0	5.5	5.3	5.3	5.2	5.0	6.0	4.7	5.0
Taiwan	1.0	16,369	5.3	5.3	3.8	4.0	4.1	4.2	6.4	3.5	4.1
Southeast Asia	2.0	1,363	5.6	5.5	5.5	5.4	5.4	5.3	5.2	4.8	5.2
Indonesia	0.6	891	5.6	5.0	6.0	5.9	5.8	5.7	4.4	4.8	5.8
Malaysia	0.3	4,858	5.2	5.5	5.6	5.6	5.7	5.7	7.2	4.6	5.4
Philippines	0.3	1,091	5.0	5.0	4.3	4.3	4.3	4.3	3.1	4.3	4.3
Thailand	0.4	2,547	4.5	5.0	5.2	5.3	5.5	5.1	4.6	5.0	5.2
Vietnam	0.1	572	8.4	8.0	7.2	7.1	7.3	7.2	7.4	7.6	7.0
South Asia	2.1	584	8.1	7.6	7.0	6.7	6.6	6.4	5.2	6.5	6.5
Bangladesh	0.2	426	5.4	6.5	5.9	5.7	5.6	5.3	4.8	5.5	5.3
India	1.6	621	8.4	8.0	7.3	7.0	7.0	6.9	5.5	6.9	7.0
Pakistan	0.2	600	8.4	6.6	6.1	5.5	4.9	4.1	4.0	5.2	4.3
Oceania	1.5	15,943	2.5	3.0	3.0	3.2	3.4	3.4	3.5	3.3	3.3
Australia	1.3	23,163	2.5	3.1	3.1	3.2	3.4	3.4	3.6	3.2	3.4
New Zealand	0.2	15,639	1.9	2.4	2.6	2.8	3.1	3.0	2.9	3.4	2.8
Other Asia and Oceania	0.1	1,070	6.2	6.1	5.1	4.8	4.6	4.4	6.1	4.1	4.4
Middle East	2.6	3,912	6.4	5.3	4.9	4.7	4.5	4.5	4.0	4.3	4.4
Iran	0.4	2,029	5.6	4.5	4.6	4.5	4.4	4.4	4.0	5.5	4.3
Iraq	0.1	944	17.0	12.8	11.7	9.2	7.5	6.1	9.5	3.4	6.3
Saudi Arabia	0.6	8,972	6.6	5.8	5.6	4.9	4.3	4.2	2.6	4.3	4.3
Turkey	0.6	3,659	7.4	4.6	4.6	4.6	4.6	5.3	3.6	4.5	4.9
Other	1.0	5,092	5.5	5.1	4.4	4.4	4.3	4.1	4.9	4.2	4.0
Africa	1.9	842	4.9	5.8	5.5	5.3	5.2	5.1	3.0	4.5	5.0
North Africa	0.8	1,965	4.2	5.8	5.4	5.2	5.1	5.0	3.9	4.5	4.8
Algeria	0.2	2,179	5.1	6.4	6.4	6.4	6.0	6.0	1.7	5.0	5.4
Egypt	0.3	1,639	4.9	5.1	5.1	5.0	5.0	4.9	4.5	4.0	4.5
Morocco	0.1	1,296	3.5	6.7	5.2	4.7	4.5	4.4	8.4	5.3	5.0
Tunisia	0.1	2,515	1.5	5.5	4.5	4.1	4.0	4.0	2.4	4.4	4.1
Sub-Saharan Africa	1.1	593	5.5	5.8	5.7	5.4	5.3	5.2	2.4	4.5	5.1
Republic of South Africa	0.4	3,747	4.9	4.7	4.5	4.6	4.9	5.2	1.8	3.7	5.1
Other Sub-Saharan Africa	0.7	406	5.8	6.5	6.4	5.8	5.5	5.2	2.8	5.0	5.1

International macroeconomic assumptions were completed in October 2006.

Table 3. Population growth assumptions

Population growth assumptions								Average		
Region/country	Population in 2006	2005	2006	2007	2008	2009	2010	1991-2000	2001-2006	2007-2016
	Millions	Percent change								
World ¹	6,528	1.2	1.2	1.1	1.1	1.1	1.1	1.4	1.2	1.1
less United States	6,230	1.2	1.2	1.2	1.1	1.1	1.1	1.4	1.2	1.1
North America	332	0.9	0.9	0.9	0.9	0.9	0.9	1.2	0.9	0.9
Canada	33	0.9	0.9	0.9	0.9	0.9	0.8	1.2	0.9	0.8
United States	298	0.9	0.9	0.9	0.9	0.9	0.9	1.2	0.9	0.9
Latin America	562	1.2	1.2	1.2	1.2	1.1	1.1	1.6	1.3	1.1
Caribbean & Central America	79	1.6	1.5	1.5	1.5	1.5	1.5	1.8	1.6	1.4
Mexico	107	1.2	1.2	1.2	1.2	1.1	1.1	1.6	1.2	1.1
South America	376	1.2	1.2	1.2	1.1	1.1	1.1	1.6	1.3	1.0
Argentina	40	1.0	1.0	1.0	0.9	0.9	0.9	1.3	1.0	0.8
Brazil	188	1.1	1.1	1.0	1.0	1.0	0.9	1.5	1.2	0.9
Other	148	1.4	1.4	1.4	1.3	1.3	1.3	1.9	1.5	1.2
Europe	526	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
European Union-25	458	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.1
Other Europe	68	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Former Soviet Union	278	0.0	0.0	0.0	0.1	0.1	0.1	0.0	-0.1	0.1
Russia	142	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.1	-0.4	-0.4
Ukraine	47	-0.7	-0.6	-0.6	-0.6	-0.6	-0.6	-0.5	-0.8	-0.6
Other	90	0.9	0.9	1.0	1.0	1.1	1.1	0.6	0.9	1.1
Asia and Oceania	3,655	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.1	1.0
East Asia	1,547	0.5	0.5	0.5	0.6	0.6	0.6	0.9	0.6	0.6
China	1,314	0.6	0.6	0.6	0.6	0.6	0.7	1.0	0.6	0.6
Hong Kong	7	0.6	0.6	0.6	0.5	0.5	0.5	1.6	0.7	0.4
Japan	127	0.1	0.0	0.0	0.0	-0.1	-0.1	0.3	0.1	-0.2
Korea	49	0.4	0.4	0.4	0.4	0.4	0.3	1.0	0.5	0.3
Taiwan	23	0.6	0.6	0.6	0.6	0.6	0.5	0.9	0.7	0.5
Southeast Asia	567	1.4	1.3	1.3	1.3	1.3	1.2	1.7	1.4	1.2
Indonesia	232	1.5	1.4	1.4	1.4	1.3	1.3	1.8	1.5	1.2
Malaysia	24	1.8	1.8	1.8	1.8	1.7	1.7	2.2	1.9	1.7
Philippines	89	1.9	1.8	1.8	1.8	1.7	1.7	2.2	1.9	1.6
Thailand	65	0.7	0.7	0.7	0.7	0.6	0.6	1.1	0.7	0.6
Vietnam	84	1.1	1.0	1.0	1.0	1.0	1.0	1.6	1.1	1.0
South Asia	1,507	1.6	1.6	1.6	1.5	1.5	1.5	1.9	1.7	1.4
Bangladesh	147	2.1	2.1	2.1	2.1	2.0	2.0	1.7	2.1	1.9
India	1,112	1.4	1.4	1.4	1.3	1.3	1.3	1.8	1.5	1.3
Pakistan	166	2.0	2.1	2.1	2.0	2.0	1.9	2.5	2.1	1.9
Oceania	35	1.3	1.2	1.2	1.2	1.2	1.1	1.5	1.4	1.1
Australia	20	0.9	0.9	0.8	0.8	0.8	0.8	1.2	0.9	0.8
New Zealand	4	1.0	1.0	1.0	0.9	0.9	0.9	1.3	1.1	0.8
Other Asia and Oceania	191	2.0	1.7	1.5	1.5	1.5	1.5	2.1	1.9	1.5
Middle East	260	1.7	1.8	1.8	1.8	1.7	1.7	2.1	1.8	1.7
Iran	65	0.8	1.0	1.1	1.1	1.1	1.2	1.4	0.8	1.1
Iraq	27	2.8	2.7	2.7	2.6	2.6	2.5	2.3	2.8	2.4
Saudi Arabia	27	2.4	2.3	2.2	2.0	1.9	1.8	3.7	2.6	1.7
Turkey	70	1.1	1.1	1.1	1.0	1.0	1.0	1.6	1.2	0.9
Other	70	2.7	2.6	2.6	2.6	2.6	2.5	2.9	2.7	2.5
Africa	915	2.2	2.2	2.2	2.1	2.1	2.1	2.5	2.2	2.1
North Africa	161	1.6	1.6	1.6	1.5	1.5	1.5	2.1	1.7	1.4
Algeria	33	1.3	1.2	1.2	1.2	1.2	1.2	1.9	1.3	1.2
Egypt	79	1.8	1.8	1.7	1.7	1.7	1.6	2.2	1.9	1.6
Morocco	33	1.6	1.6	1.6	1.5	1.5	1.5	2.0	1.7	1.4
Tunisia	10	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.0
Sub-Saharan Africa	754	2.3	2.3	2.3	2.3	2.3	2.2	2.6	2.3	2.2
Republic of South Africa	44	-0.2	-0.4	-0.4	-0.5	-0.5	-0.5	1.4	0.0	-0.5
Other Sub-Saharan Africa	710	2.5	2.5	2.5	2.4	2.4	2.4	2.7	2.5	2.4
Ethiopia	75	2.4	2.4	2.3	2.3	2.2	2.2	3.0	2.4	2.1
Nigeria	132	2.4	2.4	2.4	2.4	2.4	2.4	2.6	2.4	2.4

1/ Totals for the world and world less United States include countries not otherwise listed in the table.

Source: U.S. Department of Commerce, Bureau of the Census and U.S. Department of Agriculture, Economic Research Service. The population assumptions were completed in August 2006.

Crops

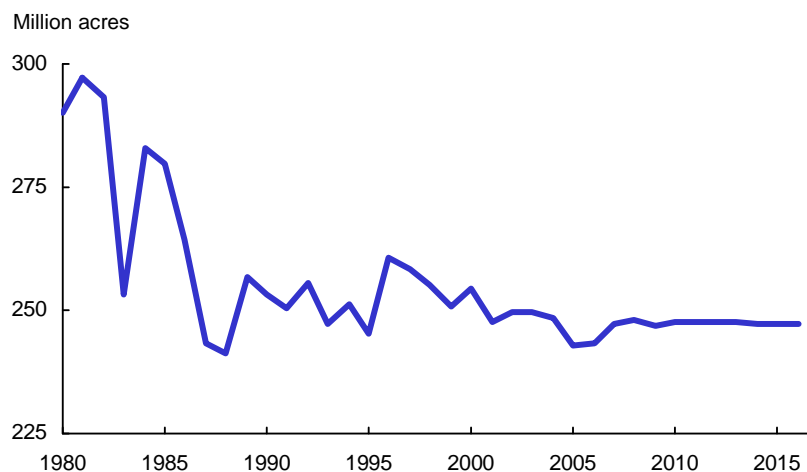
Strong expansion of corn-based ethanol production in the projections affects virtually every aspect of the field crops sector, ranging from domestic demand and exports to prices and the allocation of acreage among crops (see box, page 22). Additionally, steady U.S. and global economic growth assumed in the projections provide a favorable setting for other uses of field crops, which, following the initially large ethanol expansion, supports longer run increases in consumption and trade and keeps prices at historically high levels.

Although tempered somewhat by higher feed prices, global livestock production rises in the projections in response to growing incomes and demand for meats, which supports gains in world consumption and trade for feed grains. Following a moderate depreciation of the U.S. dollar in the first several years of the projections, the dollar (U.S. agricultural export-weighted basis) is then projected to appreciate. The stronger dollar, combined with trade competition from Brazil, Argentina, and the Black Sea region, constrains U.S. exports for some crops. Additionally, strong domestic use of corn due to increased ethanol production and the shift of land to corn from soybeans limit U.S. exports in the early years of the projections.

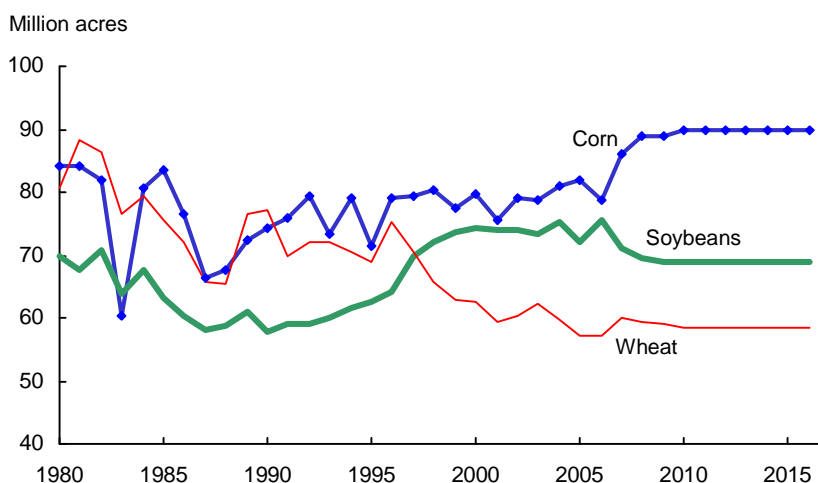
Assumptions for field crops reflect provisions of the Farm Security and Rural Investment Act of 2002 (2002 Farm Act), which is assumed to continue through the projection period. However, with high prices projected, benefits for price-sensitive programs are reduced. For example, marketing loan benefits and counter-cyclical payments for feed grains are minimal, even accounting for stochastic factors. High prices also lead to a reduction in area enrolled in the Conservation Reserve Program (CRP) through 2009, but the CRP is then assumed to rise to 39.2 million acres by the end of the projection period, with higher CRP rental rates. About two-thirds of the land in the reserve is allocated to the eight major field crops (corn, sorghum, barley, oats, wheat, rice, upland cotton, and soybeans), based on historical plantings.

Projected plantings for the eight major field crops in the United States increase from about 243 million acres in 2006 to more than 247 million during most of the projection period, as higher prices and producer net returns bring land into production.

Planted area: Eight major crops 1/



1/ The eight major crops are corn, sorghum, barley, oats, wheat, rice, upland cotton, and soybeans.

Planted area: Corn, wheat, and soybeans

Plantings of different crops are influenced by expected net returns. Net returns are determined by market prices, yields, and production costs, with returns augmented by marketing loan benefits when prices are low.

- Corn, wheat, and soybeans account for about 88 percent of acreage for the eight major field crops over the projection period. The cropping mix shifts more to corn and away from soybeans as growth in global supply and demand is reflected in prices and net returns. In particular, growth in domestic ethanol production from corn increases demand, raising corn prices and returns.
- Corn acreage rises sharply in the projections, reaching 90 million acres by 2010 as rapid expansion in ethanol production increases corn demand, prices, and producer returns. As growth in ethanol use stabilizes, annual increases in corn production from yield gains outpace increases in corn use for ethanol, allowing corn stocks to grow modestly and corn prices to ease somewhat. This supports renewed expansion in domestic corn feeding and exports. Stable, but moderate growth in corn ethanol demand combine with growth in feeding and exports to support producer returns and stabilize acreage at this higher level. Corn plantings are also facilitated by adjustments in soybean area.
- Wheat plantings rebound to 60 million acres in 2007 in response to high prices, but then fall back to 58-59 million acres due to competition from other crops.
- Soybean plantings decline to less than 69 million acres as more favorable returns to corn production draw land from soybeans.

U.S. Biofuel Overview

The Energy Policy Act of 2005 mandates that renewable fuel use in gasoline (with credits for biodiesel) reach 7.5 billion gallons by calendar year 2012. However, high oil prices combined with blender tax credits and import tariffs (see box, page 24, on tax credits and tariffs), elimination of methyl tertiary butyl ether (MTBE) as an additive in gasoline blending, State programs, and other factors have provided economic incentives for a biofuel expansion that exceeds the Act's mandate.

Biofuel Large in Agriculture but Relatively Small in Energy Sector

Most of the ongoing and projected biofuel expansion in the United States is for ethanol. Ethanol production is assumed to expand sharply through 2009/10, reflecting ongoing plant construction in response to strong profit incentives. Although more moderate growth is assumed in subsequent years, over 12 billion gallons of ethanol are produced annually by the end of the projection period. Most of this expansion is dry mill production which primarily uses corn as the feedstock. Consequently, more than 30 percent of the corn crop is used to produce ethanol by 2009/10. Nonetheless, even by the end of the projection period, ethanol production (by volume) represents less than 8 percent of annual gasoline use in the United States.

Biodiesel production capacity and output have increased rapidly in the past 2 years and are projected to rise rapidly again in 2007/08. Slower growth is then projected for several years, with biodiesel output leveling off beyond 2010/11 as higher soybean oil prices reduce profitability. At its projected high of 700 million gallons, biodiesel uses about 23 percent of soybean oil production, but accounts for less than 2 percent of highway diesel fuel use in the United States.

Cellulosic-based production of renewable fuels is assumed to meet the minimum specified in the Energy Policy Act of 2005 of 250 million gallons in 2013 and subsequent years.

Biofuel Conversion Factors

New dry mill ethanol plants are assumed in the projections to have a production yield of 2.80 gallons of ethanol from a bushel of corn, raising the industry average to 2.76 gallons per bushel at the end of the projection period. It takes slightly more than a pound of refined soybean oil to produce a pound of biodiesel, close to a one-to-one physical conversion factor. This implies that about 7.35 pounds of soybean oil are used to produce 1 gallon of biodiesel.

Acreage Expands and Shifts to Corn

Strong demand for ethanol production results in higher corn prices and provides incentives to increase corn acreage. Much of this increase occurs by adjusting crop rotations between corn and soybeans, causing a decline in soybean plantings. Other sources of land for increased corn plantings include cropland used as pasture, reduced fallow, acreage returning to production from expiring CRP contracts, and shifts from other crops such as cotton.

--Continued

U.S. Biofuel Overview *(Continued)*

Demand Effects

As the ethanol industry absorbs a larger share of the corn crop, higher prices will affect both domestic uses and exports, providing for more intense competition between and among the domestic industries and foreign buyers in the demand for feed grains. U.S. feed use of corn typically accounts for 50-60 percent of total corn use and the United States typically accounts for 60-70 percent of world corn exports. Market adjustments to higher prices result in a reduced share of corn used directly for domestic livestock feeding and a lower U.S. share of global corn trade. Corn used for animal feeding declines and represents 40-50 percent of total use in the projections, while the U.S. share of global corn trade falls to 55-60 percent.

Use of Coproducts of Ethanol Production

Although higher prices will lower direct corn feed use, distillers grains, a coproduct of dry mill ethanol production, can be used in livestock rations, particularly in diets of ruminants such as beef and dairy cattle. Distillers grains are less suitable in rations for monogastric animals, such as hogs and poultry. Thus, the growth of ethanol production and increased supply of distillers grains result in different adjustments across U.S. livestock industries. For each 56-pound bushel of corn used in the production of ethanol, about 17.5 pounds of dried distillers grains are produced.

Distillers grains produced in a dry mill ethanol plant are relatively wet, with as much as 65-70 percent moisture content. This coproduct can be used in livestock feed in this wet form or can be dried and used in a form with lower moisture content. Using wet distillers grains avoids costs of drying the product, but involves increased per-unit handling costs. Wet distillers grains also must be used relatively quickly, thus limiting how far they can be transported. Dried distillers grains incur costs of drying, but facilitate the shipment of this coproduct over greater distances, including for exports.

Whether used in a wet or dried form, distillers grains used in livestock feed replace some direct corn use, as well as soybean meal in some animal rations. Based on assumptions regarding the use of distillers grains in the livestock sector, each bushel of corn used to produce ethanol results in a reduction of about a fifth of a bushel of corn feed use. (See box, page 52, for further discussion of livestock sector uses of distillers grains.)

Crop Prices and Farm Program Costs

Increased demand for corn to produce ethanol leads to higher prices for corn and other crops, which, in turn, results in smaller government outlays under current farm commodity programs. For example, with the prices projected in this report, program costs for price-sensitive marketing loan benefits and counter-cyclical payments for feed grains are minimal, even with stochastic considerations included.

In contrast, higher market prices result in increases in CRP rental rates and overall costs for the CRP. Government costs for crop insurance also increase because of higher market prices for several of the major insured commodities. Additionally, government tax revenues are reduced due to higher total blender tax credits for biofuels.

Short Crop Sensitivity

Ethanol demand is very inelastic (unresponsive to price changes) in the range of prices projected in this report. Although the projections assume no shocks to commodity markets from production shortfalls due to weather, pests, or other factors, an important issue is how agricultural markets might respond should a production shortfall occur. With inelastic demands representing a greater share of the market and smaller levels of stocks projected, increased price variability and market volatility are likely.

Biofuel Tax Credits and Import Tariffs

Under current law, tax credits are available to blenders of biofuels equal to 51 cents per gallon for ethanol and \$1 per gallon for biodiesel (50 cents for biodiesel made from recycled vegetable oil and animal fats). Additionally, an import tariff of 54 cents per gallon is assessed on imported ethanol, with duty-free status on up to 7 percent of the U.S. ethanol market for imports from designated Central American and Caribbean countries. The ethanol tax credit is scheduled to expire at the end of calendar year 2010 and the ethanol import tariff was recently extended through the end of calendar year 2008. The biodiesel tax credit is scheduled to expire at the end of calendar year 2008.

The long-term projections in this report assume the biofuel tax credits and the ethanol tariff continue beyond their currently legislated expiration dates. However, an analysis was also conducted under the alternative assumption that those provisions expire as scheduled. The table on page 25 shows some of the key differences, focusing on domestic markets for corn, soybeans, and soybean products.

Without the biofuel tax credits and ethanol tariff, demands for corn and soybean oil to produce ethanol and biodiesel are reduced. Prices for corn, soybeans, and soybean products are lower, so other domestic demands and exports are increased. Since ethanol changes in the corn market are relatively larger than biodiesel impacts in the soybean and soybean products markets, acreage is reduced for corn, with some of that land shifting to soybeans. With lower prices, stochastic budget costs for farm programs and direct government payments would be higher.

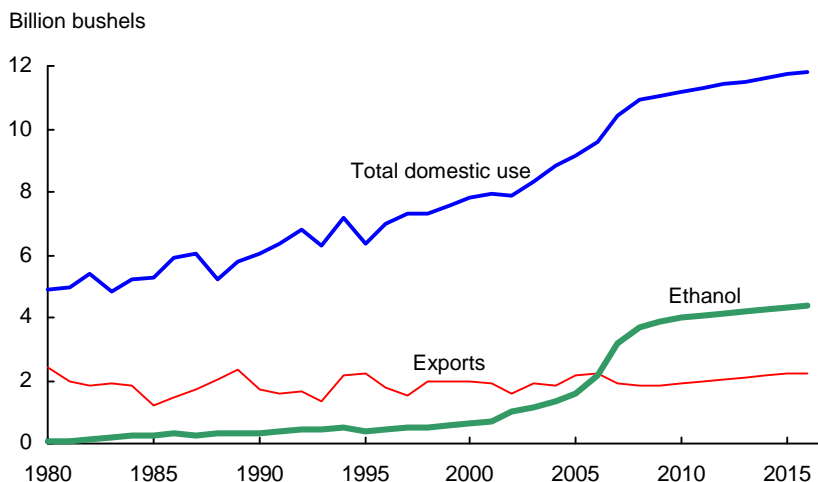
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Biofuel Tax Credits and Import Tariffs (Continued)

Corn and soybean projections under alternative biofuel policy assumptions

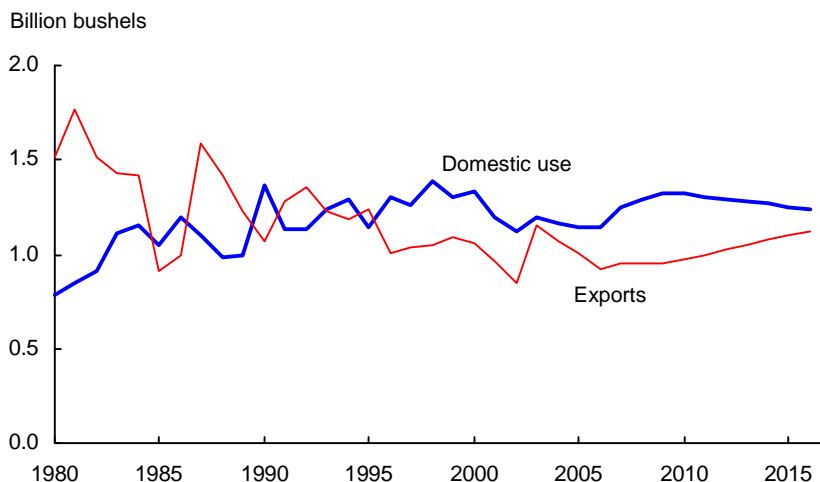
Item	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Ethanol and biodiesel tax credit and ethanol import tariff assumed to be extended										
Corn plantings	86.0	89.0	89.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
Fuel alcohol use	3,200	3,700	3,900	4,000	4,075	4,150	4,200	4,250	4,300	4,350
Feed & residual	5,825	5,775	5,725	5,750	5,775	5,800	5,850	5,900	5,950	5,975
Exports	1,925	1,850	1,850	1,925	2,000	2,050	2,100	2,150	2,200	2,250
Ending stocks	660	620	580	640	670	700	725	750	765	805
Farm price, corn	3.50	3.60	3.75	3.55	3.50	3.45	3.40	3.35	3.35	3.30
Soybean plantings	71.0	69.5	69.0	69.0	69.0	69.0	69.0	68.8	68.8	68.8
Exports	1,150	980	845	845	850	850	855	865	875	875
Ending stocks	355	237	235	237	234	232	235	233	229	230
Farm price, soybeans	7.00	7.25	7.30	7.00	6.90	6.80	6.80	6.75	6.75	6.75
Biodiesel use, soybean oil	4,410	4,594	4,778	4,961	5,145	5,145	5,145	5,145	5,145	5,145
Food use, soybean oil	16,090	16,231	16,348	16,464	16,580	16,880	17,180	17,480	17,780	18,080
Exports, soybean oil	975	875	700	700	775	775	775	775	750	725
Ending stocks, soybean oil	2,088	1,888	1,878	1,883	1,883	1,903	1,883	1,818	1,738	1,703
Soybean oil price	0.300	0.315	0.320	0.315	0.310	0.305	0.305	0.305	0.305	0.305
Soybean meal price	200.00	205.00	205.00	195.00	192.50	190.00	188.50	186.50	185.00	185.00
Ethanol and biodiesel tax credit and ethanol import tariff assumed to end										
Corn plantings	86.0	89.0	88.3	88.9	88.5	87.7	87.7	87.6	87.6	87.6
Fuel alcohol use	3,200	3,600	3,700	3,600	3,500	3,525	3,550	3,575	3,600	3,625
Feed & residual	5,825	5,806	5,781	5,852	5,922	5,956	6,010	6,065	6,119	6,149
Exports	1,925	1,876	1,887	1,979	2,086	2,139	2,193	2,246	2,299	2,352
Ending stocks	660	663	620	749	883	919	962	1,002	1,045	1,124
Farm price, corn	3.50	3.50	3.60	3.35	3.20	3.15	3.10	3.05	3.05	3.00
Soybean plantings	71.0	69.5	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Exports	1,150	980	870	885	890	895	900	915	925	925
Ending stocks	355	236	247	247	247	243	243	238	232	235
Farm price, soybeans	6.95	7.10	7.20	6.85	6.60	6.45	6.40	6.35	6.35	6.30
Biodiesel use, soybean oil	3,675	2,205	1,103	735	551	368	368	368	368	368
Food use, soybean oil	16,675	17,245	17,598	17,965	18,299	18,683	19,033	19,433	19,833	20,132
Exports, soybean oil	1,200	2,200	3,000	3,400	3,600	3,725	3,675	3,575	3,475	3,475
Ending stocks, soybean oil	2,013	1,863	1,978	2,008	2,058	2,103	2,108	2,068	1,988	1,928
Soybean oil price	0.2975	0.3075	0.310	0.3025	0.290	0.285	0.285	0.285	0.285	0.285
Soybean meal price	200.00	203.00	203.50	193.50	190.00	186.00	182.50	180.00	177.00	175.00
Difference										
Corn plantings	0.0	0.0	-0.7	-1.1	-1.5	-2.3	-2.3	-2.4	-2.4	-2.4
Fuel alcohol use	0	-100	-200	-400	-575	-625	-650	-675	-700	-725
Feed & residual	0	31	56	102	147	156	160	165	169	174
Exports	0	26	37	54	86	89	93	96	99	102
Ending stocks	0	43	40	109	213	219	237	252	280	319
Farm price, corn	0.00	-0.10	-0.15	-0.20	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30
Soybean plantings	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.2	1.2	1.2
Exports	0	0	25	40	40	45	45	50	50	50
Ending stocks	0	-1	12	10	13	11	8	5	3	5
Farm price, soybeans	-0.05	-0.15	-0.10	-0.15	-0.30	-0.35	-0.40	-0.40	-0.40	-0.45
Biodiesel use, soybean oil	-735	-2,389	-3,675	-4,226	-4,594	-4,778	-4,778	-4,778	-4,778	-4,777
Food use, soybean oil	585	1,014	1,250	1,501	1,719	1,803	1,853	1,953	2,053	2,052
Exports, soybean oil	225	1,325	2,300	2,700	2,825	2,950	2,900	2,800	2,725	2,750
Ending stocks, soybean oil	-75	-25	100	125	175	200	225	250	250	225
Soybean oil price	-0.0025	-0.0075	-0.010	-0.0125	-0.020	-0.020	-0.020	-0.020	-0.020	-0.020
Soybean meal price	0.00	-2.00	-1.50	-1.50	-2.50	-4.00	-6.00	-6.50	-8.00	-10.00

Units for plantings are million acres; corn and soybean uses, million bushels; farm prices, dollars per bushel; soybean oil uses, million pounds; soybean oil price, dollars per pound; and soybean meal price, dollars per ton.

Corn: Domestic use and exports

Domestic corn use grows throughout the projection period, primarily reflecting increases in corn used in the production of ethanol. Global economic growth underlies increases in U.S. corn exports after 2009/10.

- Large increases are projected in corn used for ethanol production over the next several years. Relatively high prices for oil contribute to favorable returns for ethanol production, which combine with government programs to provide economic incentives for the large ongoing expansion in ethanol production capacity.
- Feed and residual use of corn declines in the initial years and then rises only moderately as increased feeding of distillers grains, a coproduct of dry mill ethanol production, helps meet livestock feed demand.
- Gains in food and industrial uses of corn (other than for ethanol production) are projected to be smaller than increases in population. Consumer dietary concerns and other changes in tastes and preferences limit increases in the combined use of corn for high fructose corn syrup, glucose, and dextrose to about half the rate of population gain.
- U.S. corn exports fall over the next several years as more corn is used domestically in the production of ethanol. After growth in ethanol production in the United States slows, U.S. corn exports rise in response to stronger global demand for feed grains to support growth in meat production.
- Additionally, U.S. corn exports to Mexico are boosted because of the elimination of tariffs on corn imports from the United States. This shifts some U.S. exports to corn from sorghum, which already has tariff-free status.

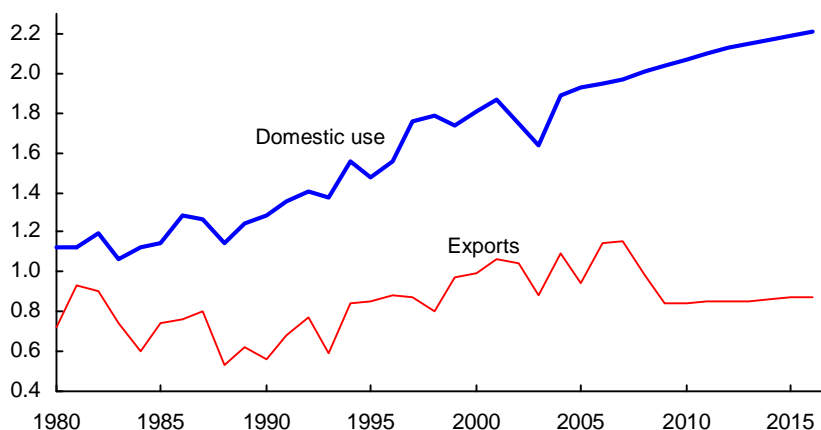
Wheat: Domestic use and exports

Overall demand in the U.S. wheat sector grows very slowly through the projection period.

- Domestic demand for wheat reflects a relatively mature market. Food use of wheat is projected to show moderate gains. Growth is somewhat slower than population increases, reflecting adjustments by some consumers to reduce carbohydrates in diets.
- Feed use of wheat, a low-value use of the crop, rises sharply in the initial years of the projections as higher corn prices encourage increases in wheat feeding, particularly in the summer quarter. As corn prices fall, wheat feeding declines after 2010/11 due to relatively higher wheat prices compared with corn.
- U.S. wheat exports are steady over the next several years, but increase after 2009/10 as income and population in developing countries grow, raising global wheat consumption and trade. Competition continues from the European Union (EU), Canada, Argentina, Australia, and the Black Sea region. The U.S. market share initially declines but then holds relatively constant near 22 percent once U.S. exports resume their growth. Market shares for Australia, Argentina, and the Black Sea region increase, while shares for Canada and the EU decline.

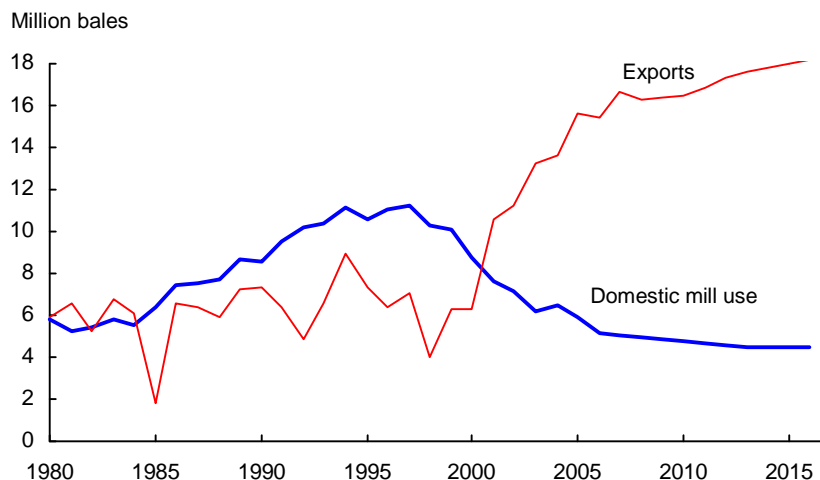
Soybeans: Domestic use and exports

Billion bushels



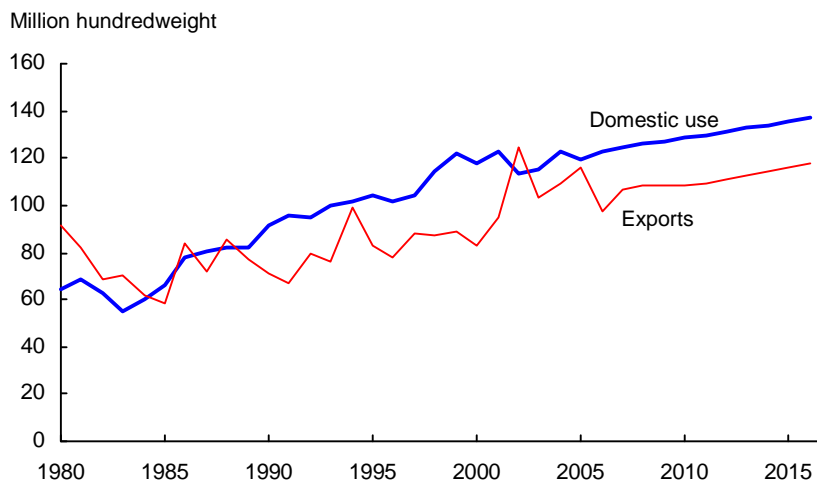
Domestic use of soybeans continues to rise slowly, but U.S. soybean exports initially fall and then grow very slowly.

- Longrun growth in domestic soybean crush is mostly driven by increasing demand for domestic soybean meal for livestock feed. Some gains in crush also reflect increasing domestic soybean oil demand for biodiesel production through 2011/12.
- U.S. soybean exports fall below 900 million bushels as U.S. acreage is shifted to corn to support ethanol production and competition from Brazil strengthens. Consequently, the U.S. market share of global soybean trade declines to less than 25 percent.
- U.S. exports of soybean oil and soybean meal face strengthening competition from South American producers. U.S. exports of soybean oil are also limited by increases in domestic consumption, while soybean meal exports benefit from rising domestic supplies.

Upland cotton: Domestic mill use and exports

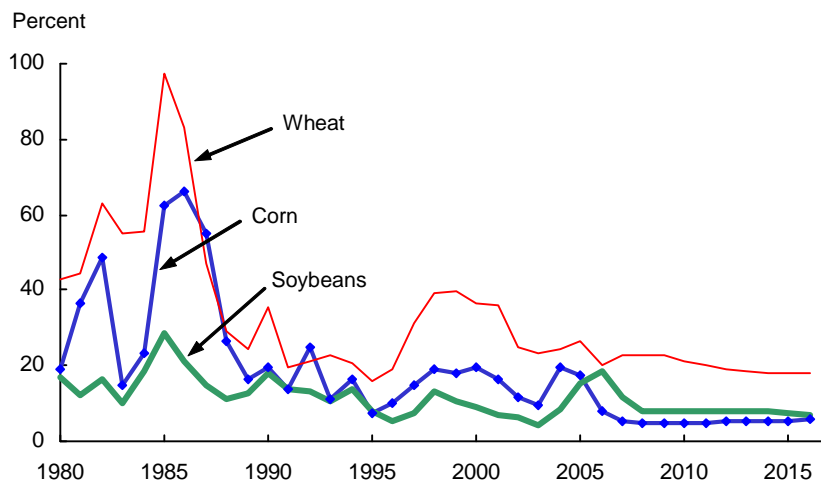
U.S. mill use of upland cotton declines in the projections while upland cotton exports rise after 2008/09.

- At the end of the projection period, domestic mill use is projected at less than 40 percent of its 1997/98 level. Textile and apparel import quotas that had been established under the Multifiber Arrangement (MFA) were eliminated at the start of calendar year 2005. As a result of this and other factors, apparel imports by the United States increase through the projections, reducing domestic apparel production and lowering the apparel industry's demand for fabric and yarn produced in the United States. Some increase in U.S. yarn and fabric exports is projected due to trade liberalization, but the net effect is for declining domestic mill use.
- U.S. upland cotton exports decline in 2008/09 as supplies are reduced due to acreage shifts to corn. Exports then grow moderately, accounting for 80 percent of U.S. cotton production throughout much of the projection period.
- Growth in the textile industry in China slows from the rapid expansion of recent years, reducing growth in China's cotton imports. As a result, world cotton consumption and trade slow as well. With global trade growth slowing, gains in U.S. cotton exports after 2008/09 keep the U.S. cotton trade share at 37-38 percent, down from over 40 percent in 2003/04 and 2004/05.

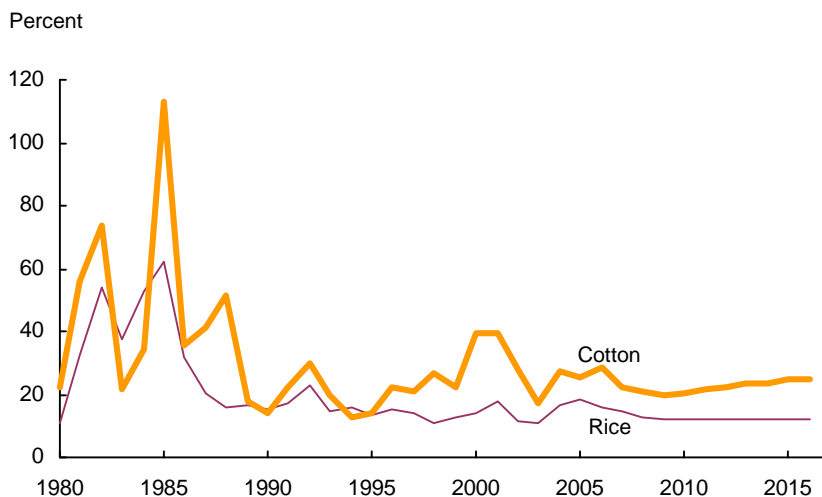
Rice: Domestic use and exports

Slow expansion in domestic food use of rice is projected over the next decade. U.S. rice exports show moderate increases.

- Growth in domestic use of rice is projected at only slightly faster than population growth, well below the rates of growth in the 1980s and 1990s when per capita use rose rapidly. Imports of aromatic varieties of rice from Asia account for a growing share of domestic use in the projections.
- U.S. rice exports are projected to increase at a moderate pace over the next decade as the U.S. price difference over Asian competitors falls, increasing U.S. competitiveness in global rice markets. Rough rice exports to Latin America are expected to continue increasing and account for most of the U.S. export expansion.
- Global rice prices are projected to increase about 2 percent per year, exceeding \$8.60 per hundredweight (rough basis) at the end of the projection period and remaining above the loan rate of \$6.50 throughout. Despite slower production growth in Asia and growing worldwide import demand for rice, increases in global prices are limited by moderate consumption growth, reflecting dietary shifts away from staple foods in Asia as incomes rise. U.S. rice prices drop slightly early in the projection period, and then slowly increase to nearly \$10 per hundredweight by 2016. The U.S. price difference over Asian competitors declines for most of the projection period.

Stocks-to-use ratios: Corn, wheat, and soybeans

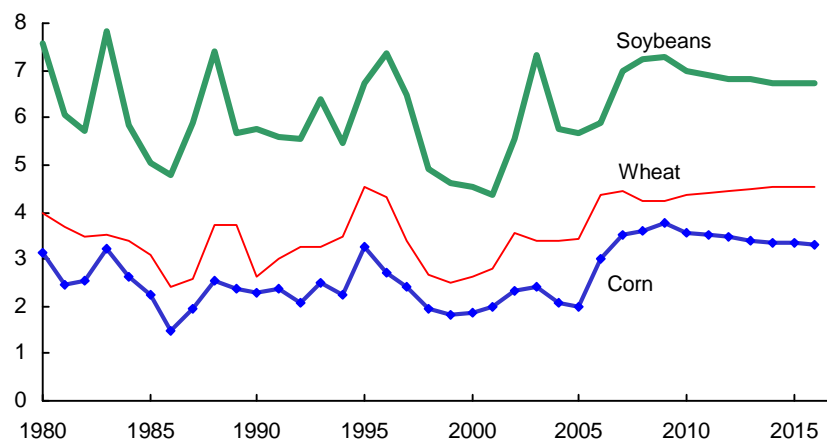
Strong ethanol demand sharply lowers U.S. corn stocks in the projections. Shifts in acreage to corn from soybeans push soybean stocks down from their record levels of recent years. After the ethanol expansion slows later in the projections, stocks rebuild somewhat for corn and stabilize at lower levels for soybeans. Wheat stocks rebound from 2006/07 levels as higher prices encourage additional acreage and production. As wheat exports strengthen in subsequent years, stocks decline.

Stocks-to-use ratios: Cotton and rice

Cotton stocks decline in the first several years of the projections as some acreage shifts to corn. Beyond 2009/10, cotton acreage increases and stocks rebuild through the end of the projections. Similarly, stocks of rice fall as acreage initially declines, but rice stocks gradually increase after 2010/11 as rice acreage rises.

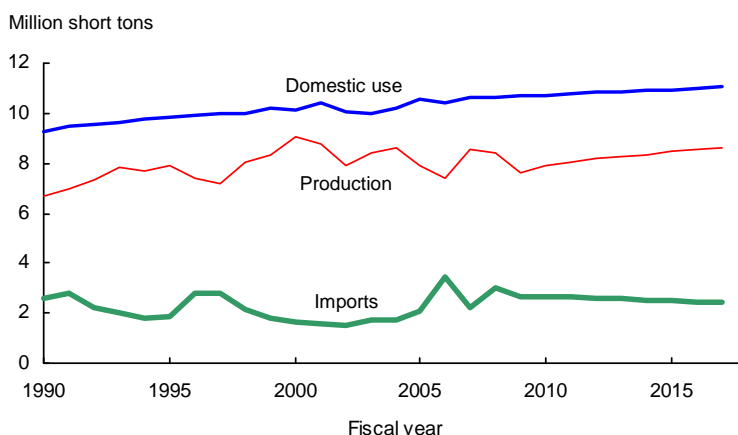
Corn, wheat, and soybean prices

Dollars per bushel



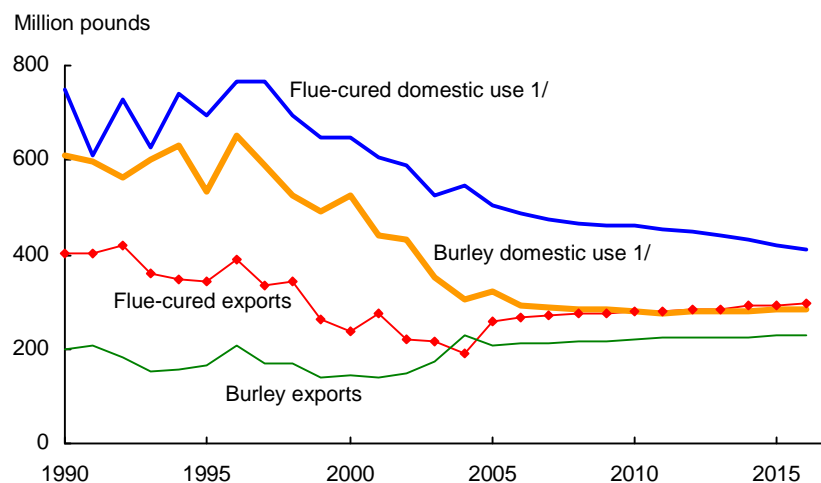
Projected farm-level prices for corn, wheat, and soybeans reflect, in part, movements in U.S. stocks-to-use ratios.

- Corn prices rise sharply through 2009/10 as increases in ethanol production strengthen corn demand. In the longer run, higher acreage and gains in yields are sufficient to meet slower ethanol production gains and moderate export growth, resulting in rising stocks-to-use ratios and falling prices for corn. Nonetheless, corn prices remain high.
- Acreage reductions for soybeans and declines in stocks from initially large levels lead to large soybean price increases through the early years of the projections. In the longer run, soybean prices are projected to fall back somewhat due to supply response in South America.
- Wheat prices are held high in the early years of the projections despite somewhat higher production as higher corn prices support wheat prices by encouraging increased wheat feed use. Later in the projections, wheat exports increase moderately, lowering the stocks-to-use ratio and raising wheat prices further.

Sugar: Domestic production, use, and imports

Sugar projections for the United States and Mexico are strongly interrelated. For additional discussion of projections for Mexico, see *Sugar and Sweeteners Outlook*, February 2007, available at <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1386>.

- On July 27, 2006, the United States and Mexico announced an agreement that resolves disputes related to each nation's interpretation of sweetener provisions of the North American Free Trade Agreement (NAFTA). Effective on January 1, 2008, there will be no duties or quantitative restraints on sugar or high fructose corn syrup (HFCS) trade between the two countries. Mexico's over-quota tariff on U.S. sugar will be eliminated on January 1, 2008, as required by the NAFTA. The United States and Mexico confirmed that on July 3, 2006, they submitted a joint letter to the World Trade Organization (WTO) Dispute Settlement Body in which both countries accepted in principle the elimination of Mexico's soft drink and distribution taxes.
- Mexico's beverage industry is assumed to shift to higher use of HFCS in 2008 and subsequent years in the projection period. This implies a higher exportable surplus of sugar from Mexico. Returns from exporting sugar to the United States are higher than either delivering sugar to domestic food manufacturers for use in sugar-containing product exports or exporting sugar to other countries at world prices. As a result, Mexican sugar exports are projected to rise to 889,000 metric tons, raw value (MTRV) in 2008. After 2008, Mexican sugar exports decrease about 40,000 MTRV per year as more production is used to satisfy expanding Mexican sweetener demand. (In Mexico, per capita sweetener consumption is assumed to grow about 0.9 percent a year.)
- The U.S. sugar price support program includes the loan rate program and marketing allotments. With high imports of sugar projected, the import trigger (1.532 million short ton, raw value--STRV) for suspension of allotments is likely to be exceeded in all years of the projections. Downward price pressures implied by NAFTA sugar imports indicate forfeitures to the Commodity Credit Corporation (CCC) throughout the projection period, which average 164,000 STRV per year. Historical growth trends in U.S. sugar sector productivity measures (sugarbeet yields, sugarcane yields, and sugar per acre) are assumed to continue throughout the projections.
- The raw sugar tariff-rate quota (TRQ) is established each year in the projections at 1,117,195 MTRV, the WTO minimum access level. The refined sugar TRQ is established each year at 57,000 MTRV. The yearly raw sugar TRQ shortfall is assumed to equal about 45,000 MTRV.
- The sugar projections assume that sweetener consumption in the United States grows at the same rate as does population. Because growth in imports of sugar-containing products is higher than population growth, per capita consumption of domestically delivered sugar decreases slightly during the projection period.

U.S. flue-cured and burley tobacco: Domestic use and exports

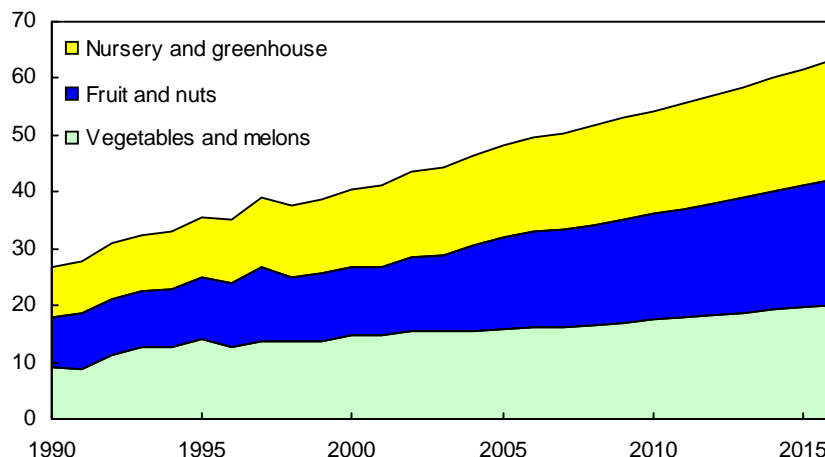
1/ Domestic use includes domestically grown and imported tobacco.

The tobacco sector is continuing to adjust to the post-program era. Legislation enacted in October 2004 ended the U.S. tobacco marketing quota and price support program beginning with the 2005 crop year. During the first season without a program (2005/06), nearly half of the tobacco producers pulled out of production. Remaining growers grew similar levels as previously. During the second season after the program, many of those remaining growers expanded operations and tobacco acreage and production increased. Production during the 2006 crop year is expected to be about 13 percent greater than the first post-program crop.

- Tobacco leaf production expands starting in 2006 as costs decline due to the elimination of costs associated with acquiring quota and as economies of scale are achieved on fewer, larger farms. Additionally, production shifts to areas such as the Coastal Plain of North Carolina and western Kentucky, where producers can achieve more economically viable scales of operation. Pennsylvania has become a major burley producing State. Leaf prices recovered slightly in 2006/07 and are projected to remain favorable for growers with marketing contracts.
- Tobacco exports are projected to increase moderately over the next decade. U.S. leaf remains competitive on the global market although the tobacco industry also faces competition from foreign producers, particularly Brazil.
- Declining cigarette consumption in the United States is an important factor underlying projected decreases in domestic use of tobacco leaf. Cigarette sales in the United States are expected to continue to fall 2-3 percent per year for the projection period. Per capita consumption declines as restrictions on smoking become more widespread and as the cost of cigarettes increases due to higher prices and taxes. Exports of cigarettes will likely stabilize near current levels.

Value of horticultural production

Billion dollars



The total farmgate production value of horticultural crops for 2006 is \$50 billion, with about a third of the total accruing to each of the following three categories: fruits and nuts; vegetables and melons; and nursery, greenhouse, and other crops. The production value grows by 2.5 percent annually over the next decade, reaching \$64 billion.

- U.S. imports of horticultural products (fruit and nuts, vegetables, greenhouse and nursery products, essential oils, beer, and wine) are projected to continue outpacing exports, with net imports expected to increase about \$7 billion from 2006 to 2016. The dollar's appreciation after 2008 is an important factor affecting trade, slowing export demand for U.S. horticultural products and raising U.S. import demand.
- U.S. horticultural imports are expected to grow by about 4 percent annually through 2016. Imports play an important role in domestic supply during the winter and, increasingly, during other times of the year. Reduced trade barriers offer U.S. consumers increased variety, with freer trade also enhancing global competition.
- The EU is the top source of U.S. horticultural imports, accounting for \$8.4 billion out of a total \$29.2 billion in 2006. Mexico is the second biggest source of U.S. horticultural imports, which amounted to \$6.7 billion in 2006. Chile, Canada, and Brazil are also large sources of horticultural product imports by the United States. Key import commodities include potatoes, tomatoes, bananas, grapes, frozen concentrated orange juice, apple juice, melons, tree nuts (especially cashews), wine, beer, and essential oils.
- U.S. horticultural exports are expected to grow by 3 percent a year through 2016, with the major export markets including Canada, Japan, and Southeast Asia. Exports of almonds, other tree nuts, and noncitrus fruits will lead export growth of fruit and nuts. Exports of fresh vegetables will be stronger than processed vegetables. Exports of wine and essential oils are also expected to increase.

Table 4. Summary policy variables for major field crops, 2005-2016

	Direct payment rate	Marketing assistance loan rate	Target price
	<i>Dollars</i> ¹		
Corn	0.28	1.95	2.63
Sorghum	0.35	1.95	2.57
Barley	0.24	1.85	2.24
Oats	0.024	1.33	1.44
Wheat	0.52	2.75	3.92
Rice	2.35	6.50	10.50
Upland cotton	0.0667	0.52	0.724
Soybeans	0.44	5.00	5.80

1/ Units are dollars per bushel except for upland cotton (per pound) and rice (per hundredweight).

Table 5. Conservation Reserve Program acreage assumptions

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	<i>Million acres</i>											
Crop allocation												
Corn	6.0	6.2	6.4	5.9	5.7	5.8	6.0	6.2	6.4	6.6	6.6	6.8
Sorghum	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0
Barley	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Oats	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
Wheat	8.4	8.7	9.0	8.2	7.9	8.1	8.3	8.7	8.9	9.1	9.2	9.4
Upland cotton	1.5	1.6	1.6	1.5	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7
Soybeans	5.5	5.7	5.9	5.4	5.2	5.3	5.5	5.7	5.9	6.0	6.1	6.2
Subtotal	23.6	24.4	25.2	23.1	22.2	22.7	23.5	24.4	25.2	25.7	26.0	26.4
Other	11.4	11.7	11.8	10.5	10.0	10.3	10.7	11.1	11.5	11.7	11.9	12.8
Total	35.0	36.1	37.1	33.6	32.2	33.0	34.1	35.6	36.7	37.4	37.9	39.2

Table 6. Planted and harvested acreage for major field crops, long-term projections

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Million acres</i>												
Planted acreage, eight major crops												
Corn	81.8	78.6	86.0	89.0	89.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
Sorghum	6.5	6.3	6.0	5.8	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5
Barley	3.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Oats	4.2	4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Wheat	57.2	57.3	60.0	59.5	59.0	58.5	58.5	58.5	58.5	58.5	58.5	58.5
Rice	3.4	2.8	3.1	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Upland cotton	14.0	15.0	13.7	13.5	13.5	13.6	13.7	13.7	13.8	13.8	13.8	13.8
Soybeans	72.0	75.6	71.0	69.5	69.0	69.0	69.0	69.0	69.0	68.8	68.8	68.8
Total	243.0	243.3	247.4	247.9	246.9	247.6	247.6	247.6	247.6	247.4	247.3	247.3
Harvested acreage, eight major crops												
Corn	75.1	71.0	78.8	81.8	81.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
Sorghum	5.7	5.3	5.1	4.9	4.9	4.9	4.9	4.9	4.8	4.8	4.7	4.7
Barley	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Oats	1.8	1.6	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Wheat	50.1	46.8	51.0	50.6	50.2	49.7	49.7	49.7	49.7	49.7	49.7	49.7
Rice	3.4	2.8	3.1	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1
Upland cotton	13.5	12.5	12.4	12.3	12.3	12.4	12.5	12.5	12.5	12.5	12.6	12.6
Soybeans	71.3	74.5	69.9	68.4	67.9	67.9	67.9	67.9	67.9	67.7	67.7	67.7
Total	224.2	217.5	225.2	225.9	225.0	225.6	225.7	225.8	225.7	225.5	225.5	225.5

Table 7. Selected supply, use, and price variables for major field crops, long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Yields¹												
Corn	147.9	151.2	153.1	155.0	156.9	158.8	160.7	162.6	164.5	166.4	168.3	170.2
Sorghum	68.7	54.2	64.8	65.2	65.6	66.0	66.4	66.8	67.2	67.6	68.0	68.4
Barley	64.8	61.0	64.8	65.4	66.0	66.6	67.2	67.8	68.4	69.0	69.6	70.2
Oats	63.0	59.5	62.9	63.3	63.7	64.1	64.5	64.9	65.3	65.7	66.1	66.5
Wheat	42.0	38.7	42.5	42.8	43.1	43.4	43.7	44.0	44.3	44.6	44.9	45.2
Rice	6,636	6,847	6,916	6,991	7,060	7,130	7,192	7,256	7,321	7,379	7,437	7,496
Upland cotton	825	788	800	810	820	830	840	850	855	860	865	870
Soybeans	43.0	43.0	41.5	42.0	42.4	42.9	43.3	43.8	44.2	44.7	45.1	45.6
Production²												
Corn	11,112	10,745	12,065	12,680	12,835	13,150	13,305	13,465	13,620	13,780	13,935	14,095
Sorghum	394	288	330	320	320	325	325	325	325	325	320	320
Barley	212	180	195	195	200	200	200	205	205	205	210	210
Oats	115	94	120	120	120	120	125	125	125	125	125	125
Wheat	2,105	1,812	2,170	2,165	2,165	2,155	2,170	2,185	2,200	2,215	2,230	2,245
Rice	223.2	193.3	213.0	211.1	213.6	216.0	219.0	221.3	223.7	225.8	227.9	230.1
Upland cotton	23,260	20,510	20,700	20,800	21,000	21,400	21,900	22,100	22,300	22,400	22,700	22,800
Soybeans	3,063	3,204	2,900	2,870	2,880	2,910	2,940	2,970	3,000	3,025	3,055	3,085
Exports²												
Corn	2,147	2,200	1,925	1,850	1,850	1,925	2,000	2,050	2,100	2,150	2,200	2,250
Sorghum	195	165	160	150	150	150	150	150	150	150	150	150
Barley	28	20	20	20	20	20	20	20	20	20	20	20
Oats	2	2	3	3	3	3	3	3	3	3	3	3
Wheat	1,009	925	950	950	950	975	1,000	1,025	1,050	1,075	1,100	1,125
Rice	115.8	97.0	107.0	108.0	108.0	108.0	109.0	111.0	113.0	114.5	116.0	117.5
Upland cotton	17,437	15,450	16,700	16,300	16,400	16,500	16,900	17,300	17,600	17,800	18,000	18,150
Soybeans	947	1,145	1,150	980	845	845	850	850	855	865	875	875
Soybean meal	7,950	8,500	9,000	9,950	10,100	10,200	10,450	10,500	10,500	10,600	10,600	10,700
Ending stocks²												
Corn	1,971	935	660	620	580	640	670	700	725	750	765	805
Sorghum	65	39	34	34	34	34	34	34	34	34	34	34
Barley	108	93	93	93	98	97	96	100	99	97	100	98
Oats	53	49	51	53	50	47	49	51	48	50	52	49
Wheat	571	418	493	517	517	482	462	442	427	422	422	427
Rice	43.0	34.5	34.2	30.4	28.3	27.9	28.8	29.4	29.7	29.9	30.2	30.4
Upland cotton	5,981	5,912	4,850	4,400	4,150	4,300	4,650	4,900	5,150	5,300	5,550	5,750
Soybeans	449	565	355	237	235	237	234	232	235	233	229	230
Prices³												
Corn	2.00	3.00	3.50	3.60	3.75	3.55	3.50	3.45	3.40	3.35	3.35	3.30
Sorghum	1.86	3.00	3.30	3.35	3.50	3.30	3.25	3.20	3.15	3.10	3.10	3.05
Barley	2.53	2.89	3.50	3.60	3.70	3.55	3.45	3.45	3.40	3.35	3.35	3.35
Oats	1.63	1.85	2.40	2.45	2.50	2.35	2.25	2.20	2.15	2.10	2.10	2.10
Wheat	3.42	4.35	4.45	4.25	4.25	4.35	4.40	4.45	4.50	4.55	4.55	4.55
Rice	7.62	9.25	8.95	8.95	9.20	9.35	9.41	9.43	9.50	9.60	9.70	9.83
Soybeans	5.66	5.90	7.00	7.25	7.30	7.00	6.90	6.80	6.80	6.75	6.75	6.75
Soybean oil	0.234	0.260	0.300	0.315	0.320	0.315	0.310	0.305	0.305	0.305	0.305	0.305
Soybean meal	174.2	177.5	200.0	205.0	205.0	195.0	192.5	190.0	188.5	186.5	185.0	185.0

1/ Bushels per acre except for upland cotton and rice (pounds per acre).

2/ Million bushels except for upland cotton (thousand bales), rice (million hundredweight), and soybean meal (thousand tons).

3/ Dollars per bushel except for soybean oil (per pound), rice (per hundredweight), and soybean meal (per ton).

Table 8. U.S. corn long-term projections

Item	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Area (million acres):												
Planted acres	81.8	78.6	86.0	89.0	89.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
Harvested acres	75.1	71.0	78.8	81.8	81.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
Yields (bushels per acre):												
Yield/harvested acre	147.9	151.2	153.1	155.0	156.9	158.8	160.7	162.6	164.5	166.4	168.3	170.2
Supply and use (million bushels):												
Beginning stocks	2,114	1,971	935	660	620	580	640	670	700	725	750	765
Production	11,112	10,745	12,065	12,680	12,835	13,150	13,305	13,465	13,620	13,780	13,935	14,095
Imports	9	10	15	20	25	20	20	20	20	20	20	20
Supply	13,235	12,725	13,015	13,360	13,480	13,750	13,965	14,155	14,340	14,525	14,705	14,880
Feed & residual	6,136	6,050	5,825	5,775	5,725	5,750	5,775	5,800	5,850	5,900	5,950	5,975
Food, seed, & industrial	2,981	3,540	4,605	5,115	5,325	5,435	5,520	5,605	5,665	5,725	5,790	5,850
Fuel alcohol use ¹	1,603	2,150	3,200	3,700	3,900	4,000	4,075	4,150	4,200	4,250	4,300	4,350
Domestic use	9,117	9,590	10,430	10,890	11,050	11,185	11,295	11,405	11,515	11,625	11,740	11,825
Exports	2,147	2,200	1,925	1,850	1,850	1,925	2,000	2,050	2,100	2,150	2,200	2,250
Total use	11,264	11,790	12,355	12,740	12,900	13,110	13,295	13,455	13,615	13,775	13,940	14,075
Ending stocks	1,971	935	660	620	580	640	670	700	725	750	765	805
Stocks/use ratio, percent	17.5	7.9	5.3	4.9	4.5	4.9	5.0	5.2	5.3	5.4	5.5	5.7
Prices (dollars per bushel):												
Farm price	2.00	3.00	3.50	3.60	3.75	3.55	3.50	3.45	3.40	3.35	3.35	3.30
Loan rate	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Variable costs of production (dollars):												
Per acre	194	207	216	222	225	228	230	233	236	239	242	245
Per bushel	1.31	1.37	1.41	1.43	1.43	1.43	1.43	1.44	1.44	1.44	1.44	1.44
Returns over variable costs (dollars per acre):												
Net returns	132	247	319	336	363	336	332	328	323	318	321	316

Note: Marketing year beginning September 1 for corn. 1/ Corn used in ethanol production is accounted for in fuel alcohol use. Distillers grains, a coproduct of ethanol production, is not accounted for in the balance sheet for corn.

Table 9. U.S. sorghum long-term projections

Item	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Area (million acres):												
Planted acres	6.5	6.3	6.0	5.8	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5
Harvested acres	5.7	5.3	5.1	4.9	4.9	4.9	4.9	4.9	4.8	4.8	4.7	4.7
Yields (bushels per acre):												
Yield/harvested acre	68.7	54.2	64.8	65.2	65.6	66.0	66.4	66.8	67.2	67.6	68.0	68.4
Supply and use (million bushels):												
Beginning stocks	57	65	39	34	34	34	34	34	34	34	34	34
Production	394	288	330	320	320	325	325	325	325	325	320	320
Imports	0	0	0	0	0	0	0	0	0	0	0	0
Supply	451	354	369	354	354	359	359	359	359	359	354	354
Feed & residual	141	95	120	120	120	125	125	125	125	125	120	120
Food, seed, & industrial	50	55	55	50	50	50	50	50	50	50	50	50
Domestic	191	150	175	170	170	175	175	175	175	175	170	170
Exports	195	165	160	150	150	150	150	150	150	150	150	150
Total use	386	315	335	320	320	325	325	325	325	325	320	320
Ending stocks	65	39	34	34	34	34	34	34	34	34	34	34
Stocks/use ratio, percent	16.8	12.4	10.1	10.6	10.6	10.5	10.5	10.5	10.5	10.5	10.6	10.6
Prices (dollars per bushel):												
Farm price	1.86	3.00	3.30	3.35	3.50	3.30	3.25	3.20	3.15	3.10	3.10	3.05
Loan rate	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Variable costs of production (dollars):												
Per acre	125	132	137	140	142	144	146	148	150	152	154	156
Per bushel	1.81	2.43	2.11	2.14	2.16	2.18	2.20	2.21	2.23	2.25	2.27	2.29
Returns over variable costs (dollars per acre):												
Net returns	23	31	77	79	88	74	70	66	62	57	57	52

Note: Marketing year beginning September 1 for sorghum.

Table 10. U.S. barley long-term projections

Item	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Area (million acres):												
Planted acres	3.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Harvested acres	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Yields (bushels per acre):												
Yield/harvested acre	64.8	61.0	64.8	65.4	66.0	66.6	67.2	67.8	68.4	69.0	69.6	70.2
Supply and use (million bushels):												
Beginning stocks	128	108	88	88	88	93	92	91	95	94	92	95
Production	212	180	195	195	200	200	200	205	205	205	210	210
Imports	5	15	20	25	25	25	25	25	25	25	25	25
Supply	346	303	303	308	313	318	317	321	325	324	327	330
Feed & residual	52	40	40	45	45	50	50	50	55	55	55	60
Food, seed, & industrial	158	155	155	155	155	156	156	156	156	157	157	157
Domestic	210	195	195	200	200	206	206	206	211	212	212	217
Exports	28	20	20	20	20	20	20	20	20	20	20	20
Total use	238	215	215	220	220	226	226	226	231	232	232	237
Ending stocks	108	88	88	88	93	92	91	95	94	92	95	93
Stocks/use ratio, percent	45.4	40.9	40.9	40.0	42.3	40.7	40.3	42.0	40.7	39.7	40.9	39.2
Prices (dollars per bushel):												
Farm price	2.53	2.90	3.50	3.50	3.60	3.40	3.25	3.25	3.20	3.15	3.15	3.15
Loan rate	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85
Variable costs of production (dollars):												
Per acre	94	100	104	106	108	109	111	112	114	115	117	119
Per bushel	1.45	1.63	1.60	1.63	1.64	1.64	1.65	1.66	1.67	1.67	1.68	1.69
Returns over variable costs (dollars per acre):												
Net returns	71	77	123	122	130	117	108	108	105	102	102	103

Note: Marketing year beginning June 1 for barley.

Table 11. U.S. oats long-term projections

Item	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Area (million acres):												
Planted acres	4.2	4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Harvested acres	1.8	1.6	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Yields (bushels per acre):												
Yield/harvested acre	63.0	59.5	62.9	63.3	63.7	64.1	64.5	64.9	65.3	65.7	66.1	66.5
Supply and use (million bushels):												
Beginning stocks	58	53	49	51	53	50	47	49	51	48	50	52
Production	115	94	120	120	120	120	125	125	125	125	125	125
Imports	91	105	85	90	90	90	90	90	90	95	95	95
Supply	264	251	254	261	263	260	262	264	266	268	270	272
Feed & residual	135	125	125	130	135	135	135	135	140	140	140	145
Food, seed, & industrial	74	75	75	75	75	75	75	75	75	75	75	75
Domestic	209	200	200	205	210	210	210	210	215	215	215	220
Exports	2	2	3	3	3	3	3	3	3	3	3	3
Total use	211	202	203	208	213	213	213	213	218	218	218	223
Ending stocks	53	49	51	53	50	47	49	51	48	50	52	49
Stocks/use ratio, percent	25.1	24.3	25.1	25.5	23.5	22.1	23.0	23.9	22.0	22.9	23.9	22.0
Prices (dollars per bushel):												
Farm price	1.63	1.85	2.40	2.45	2.50	2.35	2.25	2.20	2.15	2.10	2.10	2.10
Loan rate	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
Variable costs of production (dollars):												
Per acre	63	67	70	72	73	74	75	76	77	78	80	81
Per bushel	1.00	1.13	1.12	1.14	1.15	1.16	1.17	1.17	1.18	1.19	1.20	1.21
Returns over variable costs (dollars per acre):												
Net returns	40	43	81	83	86	77	70	67	63	59	59	59

Note: Marketing year beginning June 1 for oats.

Table 12. U.S. wheat long-term projections

Item	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Area (million acres):												
Planted acres	57.2	57.3	60.0	59.5	59.0	58.5	58.5	58.5	58.5	58.5	58.5	58.5
Harvested acres	50.1	46.8	51.0	50.6	50.2	49.7	49.7	49.7	49.7	49.7	49.7	49.7
Yields (bushels per acre):												
Yield/harvested acre	42.0	38.7	42.5	42.8	43.1	43.4	43.7	44.0	44.3	44.6	44.9	45.2
Supply and use (million bushels):												
Beginning stocks	540	571	418	493	517	517	482	462	442	427	422	422
Production	2,105	1,812	2,170	2,165	2,165	2,155	2,170	2,185	2,200	2,215	2,230	2,245
Imports	82	105	100	105	105	110	110	115	115	120	120	125
Supply	2,727	2,488	2,688	2,763	2,787	2,782	2,762	2,762	2,757	2,762	2,772	2,792
Food	915	920	930	935	940	945	950	955	960	965	970	975
Seed	78	80	80	81	80	80	80	80	80	80	80	80
Feed & residual	153	145	235	280	300	300	270	260	240	220	200	185
Domestic	1,146	1,145	1,245	1,296	1,320	1,325	1,300	1,295	1,280	1,265	1,250	1,240
Exports	1,009	925	950	950	950	975	1,000	1,025	1,050	1,075	1,100	1,125
Total use	2,155	2,070	2,195	2,246	2,270	2,300	2,300	2,320	2,330	2,340	2,350	2,365
Ending stocks	571	418	493	517	517	482	462	442	427	422	422	427
Stocks/use ratio, percent	26.5	20.2	22.5	23.0	22.8	21.0	20.1	19.1	18.3	18.0	18.0	18.1
Prices (dollars per bushel):												
Farm price	3.42	4.35	4.45	4.25	4.25	4.35	4.40	4.45	4.50	4.55	4.55	4.55
Loan rate	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Variable costs of production (dollars):												
Per acre	80	86	89	91	93	94	95	97	98	100	101	102
Per bushel	1.91	2.21	2.10	2.14	2.15	2.17	2.18	2.20	2.22	2.23	2.25	2.27
Returns over variable costs (dollars per acre):												
Net returns	63	83	100	90	90	95	97	99	101	103	103	103

Note: Marketing year beginning June 1 for wheat.

Table 13. U.S. soybean and products long-term projections

Item	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Soybeans												
Area (million acres):												
Planted	72.0	75.6	71.0	69.5	69.0	69.0	69.0	69.0	69.0	68.8	68.8	68.8
Harvested	71.3	74.5	69.9	68.4	67.9	67.9	67.9	67.9	67.9	67.7	67.7	67.7
Yield/harvested acre (bushels)	43.0	43.0	41.5	42.0	42.4	42.9	43.3	43.8	44.2	44.7	45.1	45.6
Supply (million bushels)												
Beginning stocks, Sep. 1	256	449	565	355	237	235	237	234	232	235	233	229
Production	3,063	3,204	2,900	2,870	2,880	2,910	2,940	2,970	3,000	3,025	3,055	3,085
Imports	3	4	4	4	4	4	4	4	4	4	4	4
Total supply	3,322	3,657	3,469	3,229	3,121	3,149	3,181	3,208	3,236	3,264	3,292	3,318
Disposition (million bushels)												
Crush	1,739	1,780	1,820	1,870	1,895	1,920	1,950	1,975	1,995	2,015	2,035	2,060
Seed and residual	188	166	144	143	146	147	147	151	151	152	152	153
Exports	947	1,145	1,150	980	845	845	850	850	855	865	875	875
Total disposition	2,874	3,091	3,114	2,993	2,886	2,912	2,947	2,976	3,001	3,032	3,062	3,088
Carryover stocks, Aug. 31												
Total ending stocks	449	565	355	237	235	237	234	232	235	233	229	230
Stocks/use ratio, percent	15.6	18.3	11.4	7.9	8.1	8.1	7.9	7.8	7.8	7.7	7.5	7.4
Prices (dollars per bushel)												
Loan rate	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Soybean price, farm	5.66	5.90	7.00	7.25	7.30	7.00	6.90	6.80	6.80	6.75	6.75	6.75
Variable costs of production (dollars):												
Per acre	91	97	101	103	104	105	106	107	108	109	110	111
Per bushel	2.11	2.25	2.43	2.46	2.46	2.45	2.45	2.44	2.44	2.43	2.43	2.43
Returns over variable costs (dollars per acre):												
Net returns	153	157	190	201	205	195	193	191	193	193	195	197
Soybean oil (million pounds)												
Beginning stocks, Oct. 1	1,699	2,968	2,688	2,088	1,888	1,878	1,883	1,883	1,903	1,883	1,818	1,738
Production	20,393	20,115	20,750	21,365	21,670	21,975	22,335	22,645	22,895	23,140	23,390	23,700
Imports	35	55	125	135	145	155	165	175	185	195	205	215
Total supply	22,127	23,138	23,563	23,588	23,703	24,008	24,383	24,703	24,983	25,218	25,413	25,653
Domestic disappearance	18,009	19,200	20,500	20,825	21,125	21,425	21,725	22,025	22,325	22,625	22,925	23,225
Exports	1,150	1,250	975	875	700	700	775	775	775	775	750	725
Total demand	19,159	20,450	21,475	21,700	21,825	22,125	22,500	22,800	23,100	23,400	23,675	23,950
Ending stocks, Sep. 30	2,968	2,688	2,088	1,888	1,878	1,883	1,883	1,903	1,883	1,818	1,738	1,703
Soybean oil price (dollars per lb)	0.234	0.260	0.300	0.315	0.320	0.315	0.310	0.305	0.305	0.305	0.305	0.305
Soybean meal (thousand short tons)												
Beginning stocks, Oct. 1	172	320	300	300	300	300	300	300	300	300	300	300
Production	41,241	42,415	43,285	44,535	45,135	45,710	46,435	46,960	47,435	48,010	48,485	49,060
Imports	140	165	165	165	165	165	165	165	165	165	165	165
Total supply	41,553	42,900	43,750	45,000	45,600	46,175	46,900	47,425	47,900	48,475	48,950	49,525
Domestic disappearance	33,283	34,100	34,450	34,750	35,200	35,675	36,150	36,625	37,100	37,575	38,050	38,525
Exports	7,950	8,500	9,000	9,950	10,100	10,200	10,450	10,500	10,500	10,600	10,600	10,700
Total demand	41,233	42,600	43,450	44,700	45,300	45,875	46,600	47,125	47,600	48,175	48,650	49,225
Ending stocks, Sep. 30	320	300	300	300	300	300	300	300	300	300	300	300
Soybean meal price (dollars per ton)	174.17	177.50	200.00	205.00	205.00	195.00	192.50	190.00	188.50	186.50	185.00	185.00
Crushing yields (pounds per bushel)												
Soybean oil	11.73	11.30	11.40	11.43	11.44	11.45	11.46	11.47	11.48	11.49	11.50	11.51
Soybean meal	47.44	47.66	47.60	47.60	47.60	47.60	47.60	47.60	47.60	47.60	47.60	47.60
Crush margin (dollars per bushel)	1.22	1.27	1.18	1.23	1.24	1.25	1.23	1.22	1.19	1.19	1.16	1.16

Note: Marketing year beginning September 1 for soybeans; October 1 for soybean oil and meal.

Table 14. U.S. rice long-term projections, rough basis

Item	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Area (thousand acres):												
Planted	3,384	2,841	3,100	3,040	3,045	3,050	3,065	3,070	3,075	3,080	3,085	3,090
Harvested	3,364	2,823	3,080	3,020	3,025	3,030	3,045	3,050	3,055	3,060	3,065	3,070
Yields (pounds per acre):												
Yield/harvested acre	6,636	6,847	6,916	6,991	7,060	7,130	7,192	7,256	7,321	7,379	7,437	7,496
Supply and use (million cwt):												
Beginning stocks	37.7	43.0	34.5	34.2	30.4	28.3	27.9	28.8	29.4	29.7	29.9	30.2
Production	223.2	193.3	213.0	211.1	213.6	216.0	219.0	221.3	223.7	225.8	227.9	230.1
Imports	17.1	18.0	18.5	19.1	19.6	20.2	20.8	21.5	22.1	22.8	23.4	24.1
Total supply	278.1	254.3	266.0	264.4	263.6	264.5	267.7	271.6	275.2	278.2	281.3	284.4
Domestic use and residual	119.3	122.8	124.8	126.0	127.3	128.6	129.9	131.2	132.5	133.8	135.1	136.5
Exports	115.8	97.0	107.0	108.0	108.0	108.0	109.0	111.0	113.0	114.5	116.0	117.5
Total use	235.1	219.8	231.8	234.0	235.3	236.6	238.9	242.2	245.5	248.3	251.1	254.0
Ending stocks (million cwt.)	43.0	34.5	34.2	30.4	28.3	27.9	28.8	29.4	29.7	29.9	30.2	30.4
Stocks/use ratio, percent	18.3	15.7	14.8	13.0	12.0	11.8	12.1	12.1	12.1	12.1	12.0	12.0
Milling rate, percent	70.3	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Prices (dollars per cwt.):												
World price	6.21	7.00	7.20	7.45	7.70	7.85	8.01	8.13	8.25	8.37	8.50	8.63
Average market price	7.62	9.25	8.95	8.95	9.20	9.35	9.41	9.43	9.50	9.60	9.70	9.83
Loan rate	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Variable costs of production (dollars):												
Per acre	399	421	437	447	454	459	465	470	476	482	488	495
Per cwt.	6.01	6.16	6.32	6.40	6.43	6.44	6.46	6.48	6.51	6.54	6.57	6.60
Returns over variable costs (dollars per acre):												
Net returns	126	212	182	179	196	208	212	214	219	226	233	242

Note: Marketing year beginning August 1 for rice.

Table 15. U.S. upland cotton long-term projections

Item	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Area (million acres):												
Planted acres	14.0	15.0	13.7	13.5	13.5	13.6	13.7	13.7	13.8	13.8	13.8	13.8
Harvested acres	13.5	12.5	12.4	12.3	12.3	12.4	12.5	12.5	12.5	12.5	12.6	12.6
Yields (pounds per acre):												
Yield/harvested acre	825	788	800	810	820	830	840	850	855	860	865	870
Supply and use (thousand bales):												
Beginning stocks	5,482	5,981	5,912	4,850	4,400	4,150	4,300	4,650	4,900	5,150	5,300	5,550
Production	23,260	20,510	20,700	20,800	21,000	21,400	21,900	22,100	22,300	22,400	22,700	22,800
Imports	9	10	10	10	10	10	10	10	10	10	10	10
Supply	28,751	26,501	26,622	25,660	25,410	25,560	26,210	26,760	27,210	27,560	28,010	28,360
Domestic use	5,837	5,150	5,050	4,950	4,850	4,750	4,650	4,550	4,450	4,450	4,450	4,450
Exports	17,437	15,450	16,700	16,300	16,400	16,500	16,900	17,300	17,600	17,800	18,000	18,150
Total use	23,274	20,600	21,750	21,250	21,250	21,250	21,550	21,850	22,050	22,250	22,450	22,600
Ending stocks	5,981	5,912	4,850	4,400	4,150	4,300	4,650	4,900	5,150	5,300	5,550	5,750
Stocks/use ratio, percent	25.7	28.7	22.3	20.7	19.5	20.2	21.6	22.4	23.4	23.8	24.7	25.4
Prices (dollars per pound):												
Farm price ¹	0.477	---	---	---	---	---	---	---	---	---	---	---
Loan rate	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Variable costs of production (dollars):												
Per acre	361	372	390	400	406	410	414	419	423	428	433	438
Per pound	0.44	0.47	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50
Returns over variable costs (dollars per acre):												
Net returns ²	196	144	144	147	156	161	162	166	165	160	155	153

Note: Marketing year beginning August 1 for upland cotton.

1/ USDA is prohibited from publishing cotton price projections.

2/ Net returns include estimates of marketing loan benefits.

Table 16. U.S. sugar long-term projections 1/

Item	Units	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugarbeets													
Planted area	1,000 acres	1,300	1,362	1,260	1,222	1,197	1,186	1,190	1,194	1,196	1,197	1,198	1,199
Harvested area	1,000 acres	1,243	1,306	1,231	1,121	1,151	1,143	1,153	1,160	1,163	1,164	1,164	1,165
Yield	Tons/acre	22.2	25.8	23.2	23.4	23.7	23.9	24.1	24.3	24.5	24.7	24.9	25.1
Production	Mil. s. tons	27.5	33.6	28.6	26.3	27.2	27.3	27.7	28.2	28.5	28.7	29.0	29.2
Sugarcane													
Harvested area	1,000 acres	858	860	844	790	824	822	824	824	825	824	825	825
Yield	Tons/acre	28.7	31.8	34.3	34.5	34.5	34.6	34.7	34.8	34.9	35.0	35.1	35.2
Production	Mil. s. tons	24.6	27.3	28.9	27.3	28.4	28.4	28.6	28.7	28.8	28.8	28.9	29.0
Supply:													
Beginning stocks	1,000 s. tons	1,332	1,761	1,870	2,379	2,013	1,986	1,948	1,926	1,916	1,914	1,914	1,914
Production	1,000 s. tons	7,399	8,518	8,402	7,853	8,205	8,254	8,389	8,506	8,607	8,697	8,785	8,875
Beet sugar	1,000 s. tons	4,444	4,901	4,453	4,114	4,282	4,307	4,400	4,483	4,553	4,612	4,669	4,726
Cane sugar	1,000 s. tons	2,955	3,617	3,949	3,739	3,923	3,947	3,989	4,022	4,055	4,085	4,116	4,149
Total imports	1,000 s. tons	3,443	2,206	2,752	2,433	2,512	2,490	2,412	2,351	2,301	2,259	2,215	2,166
TRQ imports	1,000 s. tons	2,588	1,821	1,437	1,244	1,244	1,244	1,244	1,244	1,244	1,244	1,244	1,244
Total supply	1,000 s. tons	12,174	12,485	13,024	12,712	12,730	12,731	12,749	12,782	12,824	12,869	12,914	12,955
Use:													
Exports	1,000 s. tons	203	200	200	200	200	200	200	200	200	200	200	200
Domestic deliveries	1,000 s. tons	10,326	10,415	10,445	10,499	10,544	10,583	10,623	10,666	10,710	10,755	10,800	10,845
Miscellaneous	1,000 s. tons	-116	0	0	0	0	0	0	0	0	0	0	0
Total use	1,000 s. tons	10,413	10,615	10,645	10,699	10,744	10,783	10,823	10,866	10,910	10,955	11,000	11,045
Ending stocks	1,000 s. tons	1,761	1,870	2,379	2,013	1,986	1,948	1,926	1,916	1,914	1,914	1,914	1,909
CCC Acquisitions	1,000 s. tons	0	46	497	-362	-20	-35	-21	-5	3	5	4	0
Private Ending Stocks	1,000 s. tons	1,761	1,824	1,836	1,833	1,826	1,822	1,822	1,817	1,812	1,807	1,803	1,798
CCC Ending Stocks	1,000 s. tons	0	46	543	180	160	125	104	99	102	107	111	111
Stocks/use ratio	Percent	16.9	17.6	22.4	18.8	18.5	18.1	17.8	17.6	17.5	17.5	17.4	17.3
Raw sugar price:													
New York (No. 14)	Cents/lb.	22.62	20.79	20.77	20.77	20.77	20.77	20.75	20.75	20.75	20.75	20.74	20.74
Raw sugar loan rate	Cents/lb.	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
Beet sugar loan rate	Cents/lb.	22.90	22.90	22.90	22.90	22.90	22.90	22.90	22.90	22.90	22.90	22.90	22.90
Grower prices:													
Sugarbeets	Dol./ton	41.30	36.16	33.33	31.71	32.97	33.45	33.98	34.38	34.67	34.90	35.12	35.36
Sugarcane	Dol./ton	27.90	29.91	30.57	30.71	30.83	30.96	31.07	31.19	31.30	31.41	31.52	31.63

1/ Fiscal years, October 1 through September 30.

Table 17. Flue-cured tobacco long-term projections

Item	Unit	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Area, yield, and production:													
Planted area	1,000 acres	176	208	214	213	218	217	222	221	226	225	227	229
Harvested area	1,000 acres	176	208	214	213	218	217	222	221	226	225	227	229
Yield	lbs./acre	2,182	2,185	2,200	2,250	2,250	2,300	2,300	2,350	2,350	2,400	2,400	2,400
Production	Mil. lbs.	383	455	470	480	490	500	510	520	530	540	545	550
Supply:													
Beginning stocks	Mil. lbs.	1,050	1,089	936	826	736	663	598	548	508	483	468	463
Marketings	Mil. lbs.	383	455	470	480	490	500	510	520	530	540	545	550
Imports	Mil. lbs.	161	165	165	170	172	175	175	175	170	165	160	155
Total ¹	Mil. lbs.	1,594	1,708	1,571	1,476	1,398	1,338	1,283	1,243	1,208	1,188	1,173	1,168
Use:													
Domestic	Mil. lbs.	505	485	475	465	460	460	455	450	440	430	420	410
Exports	Mil. lbs.	258	267	270	275	275	280	280	285	285	290	290	295
Total ¹	Mil. lbs.	764	752	745	740	735	740	735	735	725	720	710	705
Ending stocks:													
Total	Mil. lbs.	1,089	936	826	736	663	598	548	508	483	468	463	463
Price:													
Avg. to growers	\$/cwt	147	155	168	170	175	180	180	180	180	180	180	180

1/ Includes both domestically grown and imported tobacco leaf.

Table 18. Burley tobacco long-term projections

Item	Unit	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Area, yield, and production:													
Planted area	1,000 acres	100	104	111	116	118	124	128	135	140	146	148	151
Harvested area	1,000 acres	100	104	111	116	118	124	128	135	140	146	148	151
Yield	lbs./acre	2,031	2,097	2,200	2,200	2,250	2,250	2,300	2,300	2,325	2,325	2,325	2,325
Production	Mil. lbs.	203	217	245	255	265	280	295	310	325	340	345	350
Supply:													
Beginning stocks	Mil. lbs.	777	639	547	477	412	353	303	263	233	218	218	218
Marketings	Mil. lbs.	203	217	245	255	265	280	295	310	325	340	345	350
Imports	Mil. lbs.	191	190	185	180	175	170	165	165	165	165	165	165
Total ¹	Mil. lbs.	1,171	1,047	977	912	852	803	763	738	723	723	728	733
Use:													
Domestic	Mil. lbs.	323	290	287	285	282	280	277	280	280	280	282	285
Exports	Mil. lbs.	209	210	213	215	218	220	223	225	225	225	228	230
Total ¹	Mil. lbs.	532	500	500	500	500	500	500	505	505	505	510	515
Ending stocks:													
Total	Mil. lbs.	639	547	477	412	353	303	263	233	218	218	218	218
Price:													
Avg. to growers	\$/cwt	156	165	170	175	180	185	190	190	190	190	190	190

1/ Includes both domestically grown and imported tobacco leaf.

Table 19. Horticultural crops long-term projections: Production, values, and prices, calendar years

Item	Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Acreage¹:													
Fruit and nuts													
Citrus	1,000 acres	946	878	882	886	891	895	900	904	909	913	918	923
Noncitrus ²	1,000 acres	2,095	2,099	2,103	2,108	2,112	2,116	2,120	2,125	2,129	2,133	2,137	2,142
Tree nuts	1,000 acres	946	956	965	975	985	995	1,005	1,015	1,025	1,035	1,045	1,056
Total fruit and nuts	1,000 acres	3,987	3,933	3,951	3,969	3,987	4,006	4,025	4,043	4,062	4,081	4,101	4,120
Vegetables and melons													
Fresh market ³	1,000 acres	2,028	2,038	2,048	2,058	2,069	2,079	2,089	2,100	2,110	2,121	2,131	2,142
Processing	1,000 acres	1,286	1,273	1,260	1,248	1,235	1,223	1,211	1,199	1,187	1,175	1,163	1,151
Potatoes	1,000 acres	1,087	1,119	1,120	1,121	1,122	1,123	1,125	1,126	1,127	1,128	1,129	1,130
Pulses	1,000 acres	2,763	2,829	2,458	2,495	2,532	2,570	2,609	2,648	2,688	2,728	2,769	2,810
Total vegetables	1,000 acres	7,164	7,259	6,887	6,922	6,958	6,996	7,033	7,072	7,111	7,152	7,192	7,234
Total horticulture crops ⁴	1,000 acres	11,343	11,382	11,026	11,078	11,131	11,184	11,239	11,295	11,352	11,409	11,468	11,528
Production, farm value:													
Fruit and nuts													
Citrus	\$ Mil.	2,303	2,680	2,720	2,761	2,802	2,844	2,887	2,930	2,974	3,019	3,064	3,110
Noncitrus	\$ Mil.	9,955	10,244	10,541	10,847	11,161	11,485	11,818	12,161	12,513	12,876	13,250	13,634
Tree nuts	\$ Mil.	3,967	4,110	4,258	4,411	4,570	4,734	4,905	5,082	5,264	5,454	5,650	5,854
Total fruit and nuts	\$ Mil.	16,226	17,033	17,519	18,018	18,533	19,063	19,610	20,172	20,752	21,349	21,964	22,597
Vegetables and melons													
Fresh market	\$ Mil.	10,945	11,251	11,139	11,451	11,771	12,101	12,440	12,788	13,146	13,514	13,893	14,282
Processing ⁵	\$ Mil.	2,052	2,062	2,072	2,082	2,093	2,103	2,114	2,124	2,135	2,146	2,156	2,167
Potatoes ⁶	\$ Mil.	2,903	2,965	3,028	3,092	3,158	3,226	3,295	3,366	3,439	3,514	3,590	3,668
Total vegetables	\$ Mil.	15,900	16,278	16,238	16,625	17,022	17,430	17,849	18,279	18,720	19,174	19,639	20,117
Nursery/greenhouse⁷													
Floriculture	\$ Mil.	16,202	16,562	16,949	17,345	17,750	18,165	18,590	19,024	19,469	19,924	20,391	20,868
Nursery and other	\$ Mil.	5,363	5,452	5,561	5,673	5,786	5,902	6,020	6,140	6,263	6,388	6,516	6,646
Total, horticultural crops	\$ Mil.	48,767	50,314	51,149	52,433	53,752	55,107	56,498	57,927	59,395	60,902	62,451	64,042
Production, farm weight:													
Fruit and nuts													
Citrus	Mil. lbs.	23,148	23,168	23,377	23,586	23,793	24,000	24,207	24,415	24,624	24,833	25,043	25,252
Noncitrus	Mil. lbs.	36,655	36,988	37,322	37,654	37,986	38,316	38,646	38,979	39,312	39,646	39,980	40,315
Tree nuts	Mil. lbs.	2,966	3,010	3,056	3,101	3,148	3,195	3,243	3,292	3,341	3,391	3,442	3,494
Total fruit and nuts	Mil. lbs.	62,769	63,166	63,755	64,342	64,927	65,511	66,096	66,685	67,277	67,871	68,465	69,061
Vegetables and melons													
Fresh market	Mil. lbs.	49,555	49,059	49,502	49,944	50,383	50,821	51,259	51,700	52,142	52,585	53,029	53,472
Processing ⁵	Mil. lbs.	36,528	36,860	37,193	37,524	37,854	38,183	38,513	38,844	39,176	39,509	39,842	40,175
Potatoes ⁶	Mil. lbs.	42,393	43,479	44,046	44,471	44,898	45,328	45,761	46,198	46,638	47,082	47,529	47,979
Total vegetables	Mil. lbs.	128,476	129,398	130,741	131,939	133,136	134,333	135,533	136,742	137,956	139,176	140,400	141,627
Total, horticultural crops	Mil. lbs.	191,523	192,840	194,769	196,551	198,331	200,109	201,892	203,687	205,490	207,301	209,117	210,936
Producer prices⁸													
Fruit and nuts													
Citrus	2000=100	136.8	159.0	160.0	160.9	161.9	162.9	163.9	165.0	166.0	167.1	168.2	169.3
Noncitrus	2000=100	129.9	132.5	135.1	137.8	140.5	143.4	146.3	149.2	152.3	155.4	158.5	161.8
Tree nuts	2000=100	194.2	198.2	202.3	206.5	210.7	215.1	219.6	224.1	228.7	233.5	238.3	243.2
Total fruit and nuts	2000=100	161.8	168.8	172.0	175.3	178.6	182.1	185.7	189.3	193.0	196.9	200.8	204.8
Vegetables													
Fresh market	2000=100	109.1	113.3	111.2	113.3	115.4	117.7	119.9	122.2	124.6	127.0	129.4	132.0
Processing	2000=100	102.3	101.9	101.5	101.1	100.7	100.3	100.0	99.6	99.3	98.9	98.6	98.3
Potatoes	2000=100	135.8	135.2	136.3	137.9	139.5	141.1	142.8	144.5	146.2	148.0	149.8	151.6
Total vegetables	2000=100	116.7	118.7	117.2	118.9	120.6	122.4	124.2	126.1	128.0	130.0	132.0	134.0
All fruit, nuts, vegetables	2000=100	134.4	138.3	138.7	141.1	143.4	145.9	148.4	150.9	153.5	156.2	158.9	161.7

1/ Bearing acreage for fruit and nuts; harvested area for vegetables. 2/ Includes olives; excludes melons. 3/ Includes melons, sweet potatoes, mushrooms, and dual-use crops which do not separate fresh-market from processing. 4/ Includes other crops (floriculture, hops, peppermint and spearmint oils, and Hawaiian tropical crops). 5/ Includes pulses (dry edible beans, peas, and lentils) and processing agaricus mushrooms. 6/ Includes seed, feed, own farm use, or unutilized potatoes. 7/ Includes some fresh-market vegetables grown in greenhouses, such as tomatoes, cucumbers, and colored peppers. From USDA, Economic Research Service. 8/ Computed from unit values of production, or production value divided by production volume.

Data source: USDA, National Agricultural Statistics Service

Table 20. Horticultural crops long-term projections: Exports and imports, fiscal years

Item	Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Exports													
Fruit and nuts													
Fresh fruits	\$ Mil.	2,559	2,842	3,000	3,071	3,144	3,220	3,297	3,377	3,459	3,544	3,631	3,720
Citrus	\$ Mil.	627	673	700	702	704	706	708	711	713	715	717	719
Noncitrus	\$ Mil.	1,931	2,169	2,300	2,369	2,440	2,513	2,589	2,666	2,746	2,829	2,914	3,001
Processed fruits	\$ Mil.	1,535	1,738	1,800	1,836	1,873	1,910	1,948	1,987	2,027	2,068	2,109	2,151
Fruit juices	\$ Mil.	766	892	900	923	946	969	993	1,018	1,044	1,070	1,097	1,124
Tree nuts	\$ Mil.	2,429	2,926	3,300	3,399	3,501	3,606	3,714	3,826	3,940	4,059	4,180	4,306
Total fruit and nuts	\$ Mil.	6,523	7,506	8,100	8,306	8,518	8,736	8,960	9,190	9,426	9,670	9,920	10,177
Vegetables													
Fresh	\$ Mil.	1,567	1,630	1,700	1,751	1,804	1,858	1,913	1,971	2,030	2,091	2,154	2,218
Processed ¹	\$ Mil.	1,958	2,181	2,300	2,346	2,393	2,441	2,490	2,539	2,590	2,642	2,695	2,749
Total vegetables	\$ Mil.	3,526	3,810	4,000	4,097	4,196	4,298	4,403	4,510	4,620	4,733	4,848	4,967
Other horticulture													
Nursery/greenhouse	\$ Mil.	295	310	330	340	349	360	370	381	392	403	415	427
Essential oils	\$ Mil.	1,031	1,041	1,100	1,134	1,169	1,206	1,243	1,281	1,321	1,362	1,404	1,448
Wine	\$ Mil.	728	786	850	884	919	956	994	1,034	1,076	1,119	1,163	1,210
Beer	\$ Mil.	195	207	220	221	222	223	224	226	227	228	229	230
Other ²	\$ Mil.	2,577	3,006	3,800	3,952	4,110	4,274	4,445	4,623	4,808	5,001	5,201	5,409
Total horticulture	\$ Mil.	14,875	16,665	18,400	18,934	19,485	20,053	20,640	21,245	21,870	22,515	23,180	23,867
Fresh produce	\$ Mil.	4,126	4,472	4,700	4,822	4,948	5,077	5,210	5,348	5,489	5,634	5,784	5,938
Processed	\$ Mil.	10,453	11,884	13,370	13,772	14,188	14,616	15,059	15,517	15,989	16,477	16,981	17,502
Processed share ³	Percent	70	71	73	73	73	73	73	73	73	73	73	73
Export share of production	Percent	31	33	36	36	36	37	37	37	37	37	37	38
Imports													
Fruit and nuts													
Fresh fruits	\$ Mil.	4,219	4,689	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
Citrus	\$ Mil.	335	398	500	525	551	579	608	638	670	704	739	776
Noncitrus	\$ Mil.	3,884	4,291	4,500	4,631	4,765	4,903	5,045	5,191	5,342	5,497	5,656	5,820
Processed fruits	\$ Mil.	2,343	2,603	2,800	2,867	2,936	3,006	3,079	3,153	3,228	3,306	3,385	3,466
Fruit juices	\$ Mil.	1,005	1,056	1,100	1,129	1,158	1,188	1,219	1,251	1,283	1,317	1,351	1,386
Tree nuts	\$ Mil.	1,155	1,070	1,100	1,140	1,181	1,223	1,267	1,313	1,360	1,409	1,460	1,512
Total fruit and nuts	\$ Mil.	7,718	8,363	8,900	9,157	9,421	9,693	9,973	10,262	10,558	10,864	11,179	11,502
Vegetables													
Fresh	\$ Mil.	3,518	3,979	4,300	4,494	4,696	4,907	5,128	5,359	5,600	5,852	6,115	6,390
Processed ¹	\$ Mil.	2,621	2,755	2,900	3,016	3,137	3,262	3,393	3,528	3,669	3,816	3,969	4,128
Total vegetables	\$ Mil.	6,139	6,734	7,200	7,510	7,832	8,169	8,520	8,887	9,269	9,668	10,084	10,518
Other horticulture													
Nursery/greenhouse	\$ Mil.	1,374	1,423	1,500	1,557	1,616	1,678	1,741	1,807	1,876	1,947	2,021	2,098
Essential oils	\$ Mil.	2,435	2,469	2,500	2,568	2,637	2,708	2,781	2,856	2,933	3,013	3,094	3,177
Wine	\$ Mil.	3,720	4,043	4,400	4,602	4,814	5,036	5,267	5,509	5,763	6,028	6,305	6,595
Beer	\$ Mil.	2,978	3,375	3,500	3,623	3,749	3,881	4,016	4,157	4,302	4,453	4,609	4,770
Other ²	\$ Mil.	2,515	2,782	3,200	3,360	3,528	3,704	3,890	4,084	4,288	4,503	4,728	4,964
Total horticulture	\$ Mil.	26,879	29,189	31,200	32,376	33,598	34,868	36,189	37,563	38,991	40,476	42,020	43,626
Fresh produce	\$ Mil.	7,738	8,668	9,300	9,644	10,000	10,371	10,755	11,155	11,570	12,001	12,449	12,914
Processed	\$ Mil.	17,767	19,098	20,400	21,175	21,981	22,820	23,693	24,600	25,545	26,527	27,549	28,613
Processed share ³	Percent	66	65	65	65	65	65	65	65	66	66	66	66
Import share of consumption	Percent	44	47	49	49	50	50	50	51	51	52	52	52

1/ Includes dry edible beans, peas, lentils, and potatoes. 2/ Includes other beverages, hops, ginseng, sauces, condiments, food preparations, yeast, starches, etc.

3/ Includes beverages; excludes fresh fruits and vegetables, and nursery/greenhouse crops.

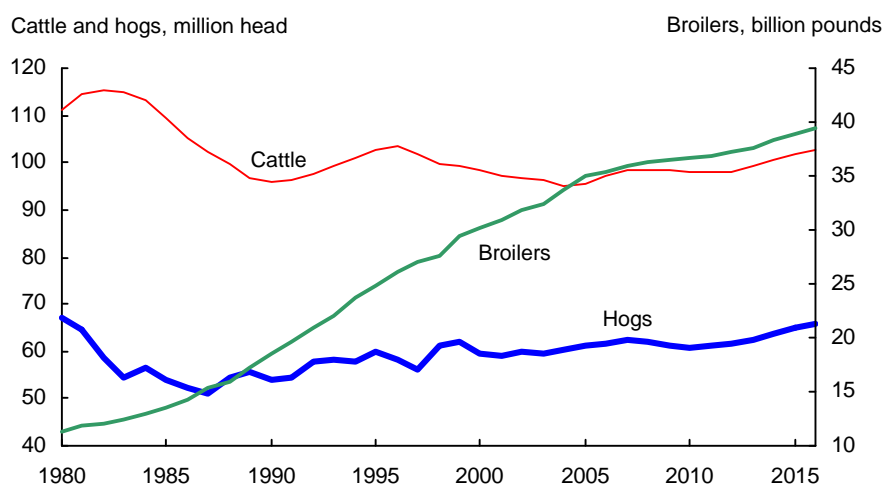
Exports are free alongside ship (FAS) value at U.S. port of exportation. Imports are customs value at U.S. port of entry.

Data source: U.S. Department of Commerce, Bureau of the Census.

Livestock

Projections for the livestock sector reflect production adjustments in response to sharply higher grain prices due to the expansion of corn-based ethanol production. Returns to U.S. meat and poultry production fall from those in recent years, slowing increases in or reducing production of all meats over the next several years. Once the sector adjusts, lower overall production combined with strong domestic demand and some strengthening in meat exports result in higher prices and higher returns, providing economic incentives for expansion in the sector and a resumption in meat production gains.

Livestock inventories and broiler production



Production of all meats slows or declines in the first half of the projection period, reflecting higher feed costs as more corn is used in ethanol production. Distillers grains, a coproduct of ethanol production, can be used in livestock rations, substituting for corn and sometimes for soybean meal (see box, page 52).

- Higher grain prices in tandem with drought impacts in 2006 hold down cattle inventories, pushing U.S. beef production down in 2009-11. Production then rises in the remainder of the projection period as returns improve. The cattle inventory remains in a range of 97-99 million head through 2011, and then expands to over 102 million by 2016. Rising slaughter weights augment this herd expansion, leading to annual beef production gains of 1 percent or more starting in 2013. Higher costs of feedlot gain will result in stocker cattle remaining on pasture to heavier weights before entering feedlots.
- Pork production declines in 2008-10 in response to higher feed prices and then grows for several years as higher hog prices improve returns. Expansion slows again at the end of the projections as returns narrow. Production coordination and market integration between the United States and Canada continue in the hog sector. Canada is the major supplier of live swine imported by the United States. Imported feeder pigs from Canada are finished and processed in the United States, where both finishing and processing costs are lower.
- Poultry production continues to rise, but less rapidly than during the 1990s due to the maturity of domestic demand, slower export growth, and adjustment to higher feed costs.

Livestock Sector Use of Distillers Grains, a Coproduct of Ethanol Production

With the expansion of the U.S. ethanol industry and higher prices for corn, a reduced share of the corn crop is used directly for domestic livestock feeding. However, a coproduct of ethanol production, distillers grains, may substitute for corn in some livestock rations, particularly for beef and dairy cattle. Cattle feedlots located close to an ethanol plant will benefit from a steady supply of distillers grains. Meanwhile, distillers grains are less suitable in poultry and hog rations. The divergent effects of ethanol expansion on the different categories of livestock and in different regions of the country could result in structural changes in some parts of the U.S. livestock sector. For each 56-pound bushel of corn used in the production of ethanol, about 17.5 pounds of dried distillers grains are produced. (See box, page 22, for additional discussion of domestic biofuel issues.)

The use of distillers grains in livestock feeding and their overall substitution for direct corn feed use in the projections reflect a number of important underlying assumptions.

- The projections assume that 75 percent of distillers grains is used in domestic livestock sector feeding. Exports of distillers grains are assumed to account for 10 percent of production. The remaining 15 percent of production is assumed to go to other nonfeed, domestic uses.
- Of the portion of distillers grains used for domestic livestock feeding, 80 percent is assumed to be used for beef cattle, 10 percent for dairy, and 5 percent each for poultry and hogs. These assumptions reflect the relatively easier use of distillers grains by ruminants compared to monogastric animals. The high usage by beef cattle also reflects the ability of those animals to use the wet form of distillers grains.
- Based on the animal nutrition studies listed below, distillers grains on a dry matter basis are assumed to replace corn in rations of beef cattle pound for pound; dairy rations, 1 pound distillers grains for 0.45 pound corn; hog rations, 1 pound distillers grains for 0.85 pound corn; and poultry rations, 1 pound distillers grains for 0.55 pound corn. For each animal type, other ration components are adjusted to rebalance the ration. Protein adjustments affect soybean meal feeding for hogs, poultry, and dairy cattle. Most distillers grains used for cattle feeding displace urea as the protein source rather than soybean meal.

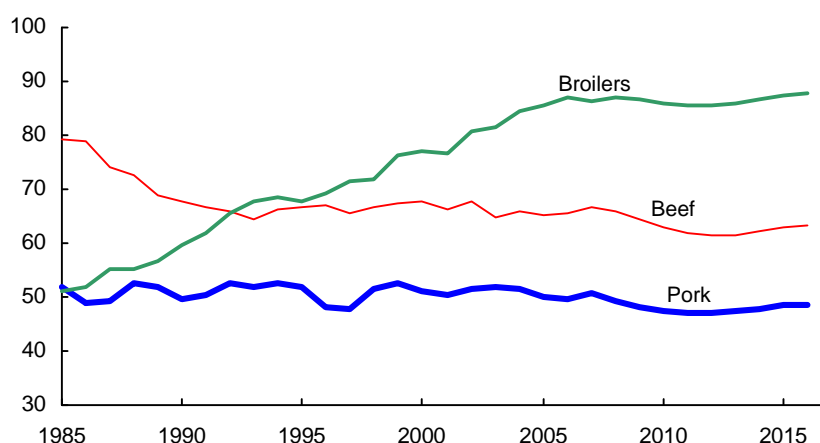
Using these assumptions, each bushel of corn used to produce ethanol results in a reduction of about a fifth of a bushel of direct corn feeding due to the use of distillers grains in rations. Since beef cattle are assumed to be the largest users of distillers grains, only a small offset is expected in soybean meal use.

References

- Anderson, J. L., D. J. Schingoethe, K. F. Kalscheur, and A. R. Hippen. "Evaluation of dried and wet distillers grains included at two concentrations in the diets of lactating dairy cows," *Journal of Dairy Science*, 2006, Volume 89, pp. 3133-42.
- Lumpkins, B. S., A. B. Batal, and N. M. Dale. "Evaluation of Distillers Dried Grains with Solubles as a Feed Ingredient for Broilers," *Poultry Science*, 2004, Volume 83, pp. 1891-96.
- Shurson, Jerry, Mindy Spiehs, Jennifer Wilson, and Mark Whitney. "Value and use of 'new generation' distiller's dried grains with solubles in swine diets," *Alltech's 19th International Feed Industry Symposium Proceedings*, May 2003.
- Vander Pol, Kyle J., Galen E. Erickson, Terry J. Klopfenstein, Matt A. Greenquist, and Thomas Robb. "Effect of Dietary Inclusion of Wet Distillers Grains on Feedlot Performance of Finishing Cattle and Energy Value Relative to Corn," *2006 Nebraska Beef Cattle Report*, pp. 51-53.

Per capita meat consumption

Retail weight, pounds per capita

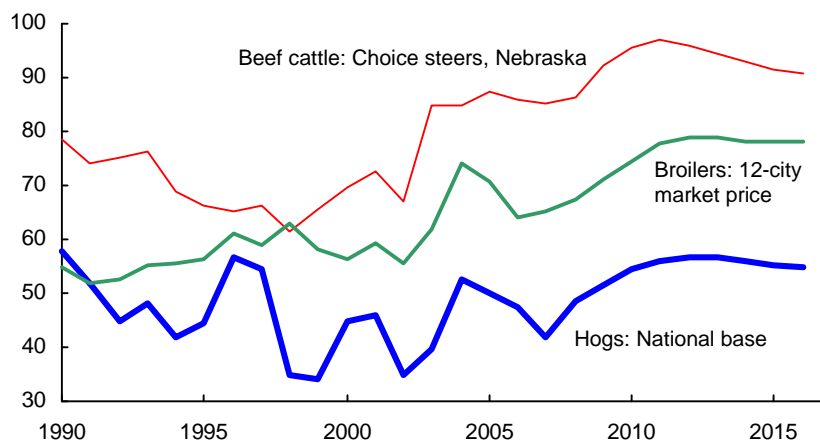


Annual per capita consumption of red meats and poultry falls from 223 pounds in 2007 to a low of 213 pounds in 2012, reflecting livestock sector production adjustments to higher feed costs due to increased ethanol production as well as gains in meat and poultry exports. Per capita consumption of red meats and poultry then resumes growth but, at about 219 pounds in 2016, remains lower than in recent years.

- Per capita beef consumption declines through the first half of the projection period reflecting lower production due to drought in 2006 and adjustments in the industry to higher feed costs and reduced returns. Use of distillers grains in cattle rations and reductions in corn prices later in the projections lead to production gains and increases in per capita beef consumption in 2013-16.
- Although U.S. beef exports do not return to the levels reached prior to the December 2003 discovery of bovine spongiform encephalopathy (BSE) in Washington State, a gradual rebuilding of U.S. beef exports to Japan and South Korea is assumed in the projections, further limiting domestic per capita beef consumption.
- Strong demand for consistent, high-quality beef continues in the domestic hotel and restaurant market, and increasingly in the retail market. Beef export markets are also primarily for high-quality beef. An important development will be how beef quality is affected by the increased use of distillers grains in beef cattle rations.
- Higher feed costs lead to reductions in pork production which combine with rising pork exports to push per capita pork consumption down through 2011. A gradual rebound in per capita pork consumption occurs over the remainder of the projection period.
- Poultry prices remain lower than red meat prices. However, as returns are squeezed, production gains slow and per capita consumption declines for several years. Following these adjustments, production strengthens and per capita poultry consumption resumes growth later in the projections.

Nominal livestock prices

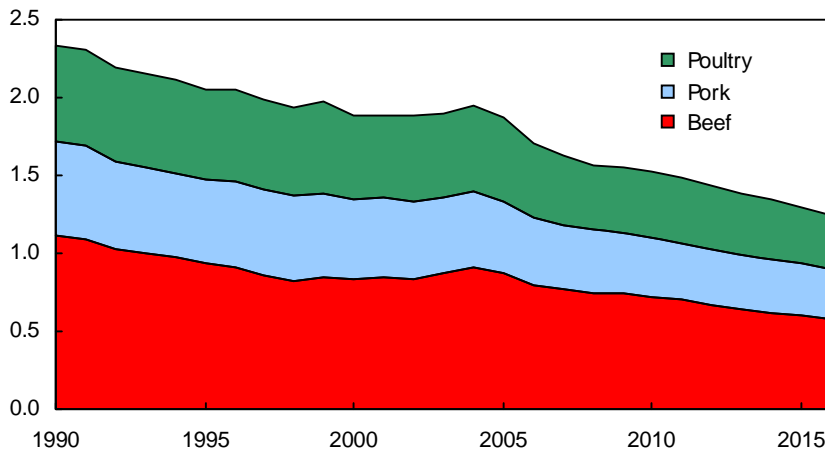
Dollars per hundredweight



Livestock prices are projected to move to higher levels following near-term production adjustments in the sector in response to higher feed costs. As production rebounds later in the projections, prices decline somewhat although they remain historically high.

Percent of U.S. income spent on meat

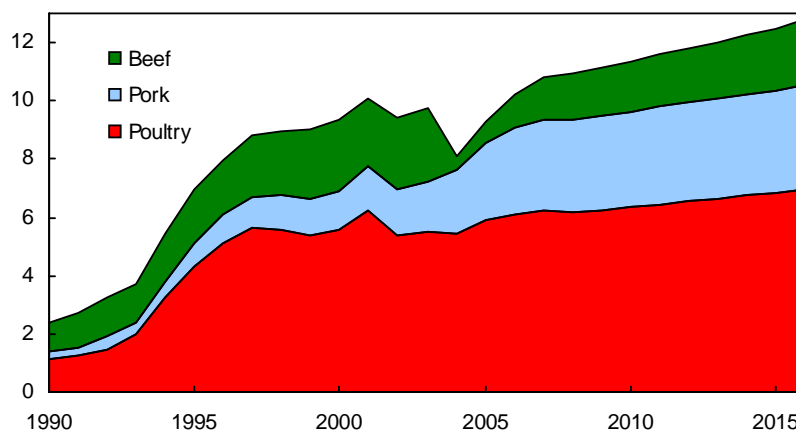
Percent



Rising incomes facilitate gains in consumer spending on meat. Nonetheless, overall meat expenditures represent a declining proportion of disposable income, continuing a long-term trend.

U.S. meat exports

Billion pounds



Although the domestic market remains the dominant source of overall meat demand, exports account for a growing share U.S. meat use. Despite higher prices, U.S. meat exports rise throughout the projections as global economic growth supports increases in demand.

Beef

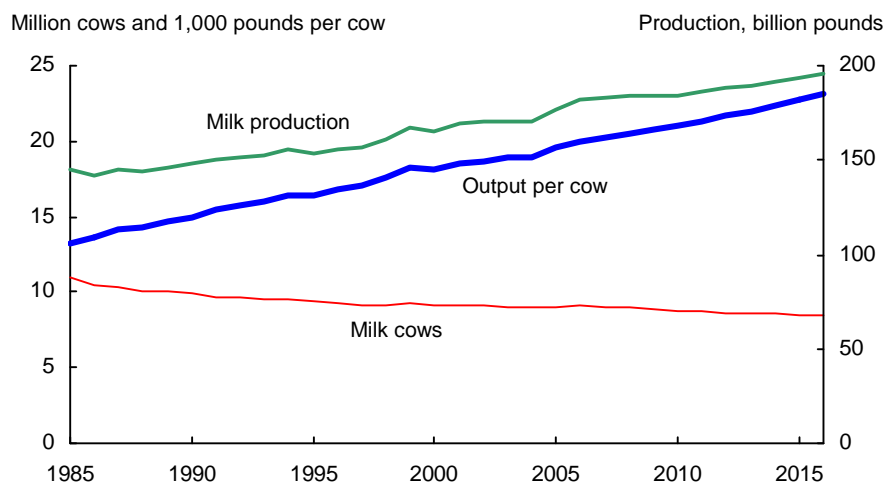
- U.S. beef exports primarily reflect demand for high-quality fed beef, with most U.S. beef exports typically going to Mexico, Canada, and markets in Pacific Rim nations. U.S. beef exports are projected to rise slowly as a gradual recovery is assumed in the Japanese and South Korean export markets lost following the first U.S. BSE case in December 2003.
- U.S. imports of processing beef from Australia and New Zealand increase in the projections. With more of demand in the East Asian market being met by U.S. beef exports, exports to that market from Australia and New Zealand are reduced, resulting in more of their product being shipped to the United States. The United States is a net beef importer by volume throughout the projection period as the recovery of high-quality fed beef exports does not reach levels of 2000-03.

Pork

- U.S. pork exports continue to benefit from lower levels of beef exports as import demand shifts among competing meats. Pacific Rim nations and Mexico remain key markets for long-term growth of U.S. pork exports. Canada continues to be a competitor in these markets. Brazil also is a major pork exporter. However, the projections assume that Brazil will not be recognized as free of foot-and-mouth disease (FMD) nationwide, thus limiting Brazilian pork producers' ability to compete in some markets. Consequently, Brazil's pork exports expand to markets with less stringent import restrictions regarding FMD, including Russia, Argentina, and Asian markets other than Japan and South Korea.
- Despite higher feed costs, increased efficiency in U.S. pork production limits production-cost increases and enhances the competitiveness of U.S. pork products. Nonetheless, longer term gains in U.S. pork exports will be determined by costs of production and environmental regulations relative to competitors. Such costs tend to be lower in countries with pork industries in the early stages of development and integration, such as Brazil.

Poultry

- U.S. broiler export growth is expected to slow from the rate of the 1990s. Major U.S. export markets include Asia, Russia, and Mexico. Gains in these markets reflect strong economic growth and rising consumer demand for meats. Demand for poultry also remains strong due to its lower cost relative to beef and pork. U.S. producers will face strong competition from other major broiler exporting countries, particularly Brazil. Poultry exports from countries affected by avian influenza, such as Thailand and China, are expected to be limited to fully cooked products.

Milk production and dairy herd

Relatively high farm milk prices in 2004-05 encouraged increases in milk cow numbers in 2005-06. Combined with an upward trend in output per cow, this resulted in relatively strong gains in milk production in 2005-06 and reductions in milk prices. Smaller production gains are projected over the rest of the projection period, particularly in the next several years as the sector adjusts to higher feed costs.

- Milk output per cow is projected to increase, although some slowing in these gains occurs early in the projection period in response to higher feed costs. Nonetheless, further development of large, specialized operations in most regions will contribute to a continuation of gains in output per cow.
- Milk cow numbers are expected to decline after 2006, with the largest reductions in 2008-10 as feed costs rise. Longer term reductions are smaller as increasing specialization of dairy farms over time slows exit rates from milk production compared with past decades.
- Commercial use increases slightly faster than the growth in population, reflecting slow growth in domestic demand for dairy products. Cheese and butter demand benefit from greater consumption of prepared foods and increased away-from-home eating. Per capita consumption of fluid milk, however, is expected to continue to decline slowly.
- Farm-level milk prices increase after 2006 as milk production gains are smaller than those in 2005-06. Price increases are largest through 2011 as the sector adjusts to higher feed costs. Milk price increases are then projected to be less than the general inflation rate through the rest of the projections.

Note: Milk price projections do not reflect interim changes to the manufacturing allowance announced December 29, 2006.

Table 21. Per capita meat consumption, retail weight

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Pounds</i>												
Total beef	65.3	65.5	66.5	65.8	64.4	62.8	62.0	61.6	61.6	62.3	62.9	63.2
Total veal	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4
Total pork	50.0	49.5	50.9	49.1	48.0	47.3	47.0	47.1	47.4	47.9	48.4	48.7
Lamb and mutton	1.1	1.0	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total red meat	117.0	116.5	119.0	116.5	114.1	111.7	110.5	110.2	110.5	111.6	112.7	113.3
Broilers	85.7	86.9	86.4	86.9	86.6	86.0	85.4	85.4	85.8	86.7	87.3	87.8
Other chicken	1.3	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Turkeys	16.7	16.8	16.7	17.0	16.8	16.6	16.5	16.5	16.5	16.5	16.5	16.5
Total poultry	103.7	105.0	104.5	105.2	104.7	104.0	103.2	103.2	103.6	104.5	105.1	105.7
Red meat & poultry	220.7	221.5	223.4	221.8	218.8	215.7	213.8	213.3	214.1	216.1	217.8	218.9

Table 22. Consumer expenditures for meats

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beef, dollars per person	267.18	260.63	263.25	269.09	276.59	280.46	284.71	285.66	285.94	289.05	292.24	295.30
Percent of income	0.87	0.80	0.77	0.75	0.74	0.72	0.70	0.67	0.64	0.62	0.60	0.58
Percent of meat expenditures	46.40	47.02	47.28	47.03	46.71	46.12	45.78	45.36	45.06	45.12	45.13	45.02
Pork, dollars per person	141.49	139.02	140.46	142.29	144.84	147.68	149.78	152.72	155.08	156.65	158.49	160.65
Percent of income	0.46	0.43	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.33	0.32
Percent of meat expenditures	24.57	25.08	25.22	24.87	24.46	24.29	24.08	24.25	24.44	24.45	24.48	24.49
Broilers, dollars per person	149.24	135.68	134.85	142.36	152.08	160.91	168.30	172.32	174.67	176.52	178.81	182.27
Percent of income	0.48	0.42	0.40	0.40	0.41	0.41	0.41	0.40	0.39	0.38	0.37	0.36
Percent of meat expenditures	25.92	24.48	24.22	24.88	25.68	26.46	27.06	27.36	27.53	27.56	27.61	27.79
Turkeys, dollars per person	17.89	18.92	18.27	18.43	18.65	18.99	19.12	19.07	18.84	18.39	17.98	17.69
Percent of income	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03
Percent of meat expenditures	3.11	3.41	3.28	3.22	3.15	3.12	3.07	3.03	2.97	2.87	2.78	2.70
Total meat, dollars per person	575.80	554.25	556.82	572.17	592.16	608.05	621.91	629.77	634.53	640.61	647.53	655.91
Percent of income	1.86	1.71	1.63	1.61	1.59	1.56	1.53	1.48	1.42	1.37	1.33	1.29

Table 23. Beef long-term projections

Item	Units	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beginning stocks	Mil. lbs.	637	571	625	600	600	600	600	600	600	600	600	600
Commercial production	Mil. lbs.	24,683	25,970	26,700	26,744	26,449	26,036	25,948	26,068	26,365	26,977	27,547	28,031
Change from previous year	Percent	0.5	5.2	2.8	0.2	-1.1	-1.6	-0.3	0.5	1.1	2.3	2.1	1.8
Farm production	Mil. lbs.	101	102	102	102	102	102	102	102	102	102	102	102
Total production	Mil. lbs.	24,784	26,072	26,802	26,846	26,551	26,138	26,050	26,170	26,467	27,079	27,649	28,133
Imports	Mil. lbs.	3,599	3,152	3,360	3,366	3,389	3,413	3,437	3,462	3,486	3,512	3,538	3,564
Total supply	Mil. lbs.	29,020	29,795	30,787	30,812	30,540	30,151	30,087	30,232	30,553	31,191	31,787	32,297
Exports	Mil. lbs.	697	1,164	1,500	1,556	1,633	1,711	1,789	1,865	1,942	2,040	2,124	2,258
Ending stocks	Mil. lbs.	571	625	600	600	600	600	600	600	600	600	600	600
Total consumption	Mil. lbs.	27,752	28,006	28,687	28,656	28,307	27,840	27,698	27,767	28,011	28,551	29,063	29,439
Per capita, carcass weight	Pounds	93.3	93.5	95.0	94.0	92.1	89.8	88.6	88.0	88.0	89.0	89.8	90.2
Per capita, retail weight	Pounds	65.3	65.5	66.5	65.8	64.4	62.8	62.0	61.6	61.6	62.3	62.9	63.2
Change from previous year	Percent	-1.2	0.2	1.5	-1.0	-2.1	-2.5	-1.4	-0.6	0.0	1.1	0.9	0.5
Prices:													
Beef cattle, farm	\$/cwt	89.55	88.25	87.75	88.98	94.98	98.33	99.77	98.55	97.07	95.59	94.27	93.38
Calves, farm	\$/cwt	135.42	132.73	126.79	122.44	123.56	128.16	134.55	134.93	132.15	129.34	126.81	124.72
Choice steers, Nebraska	\$/cwt	87.28	85.76	85.25	86.44	92.28	95.53	96.93	95.75	94.31	92.87	91.59	90.73
Deflated price	\$/cwt	44.99	43.08	41.78	41.33	43.05	43.48	43.04	41.48	39.86	38.29	36.84	35.60
Yearling steers, Okla. City	\$/cwt	110.94	107.26	102.25	98.74	99.64	103.36	108.51	108.82	106.57	104.30	102.27	100.58
Deflated price	\$/cwt	57.18	53.88	50.11	47.21	46.48	47.04	48.18	47.14	45.04	43.01	41.14	39.47
Retail: Beef and veal	1982-84=100	200.4	202.1	201.0	207.5	217.8	226.5	233.1	235.4	235.5	235.6	235.9	237.3
Retail: Other meats	1982-84=100	177.5	180.7	177.0	181.5	185.6	189.6	192.9	196.1	198.9	201.2	203.6	206.4
ERS retail beef	\$/lb.	4.09	3.98	3.96	4.09	4.29	4.46	4.59	4.64	4.64	4.64	4.65	4.68
Costs and returns, cow-calf enterprise:													
Variable expenses	\$/cow	237.03	247.76	261.99	271.97	277.63	283.71	283.15	285.90	288.80	291.91	295.02	295.27
Fixed expenses	\$/cow	127.04	130.49	135.54	139.89	142.63	145.03	147.28	149.48	151.65	153.95	156.21	158.54
Total cash expenses	\$/cow	364.07	378.25	397.53	411.87	420.26	428.74	430.44	435.38	440.45	445.86	451.23	453.81
Returns above cash costs	\$/cow	174.62	148.23	141.12	117.34	123.66	144.15	179.17	184.96	176.58	167.46	159.52	156.37
Cattle inventory	1,000 head	95,438	97,102	98,400	98,600	98,308	97,976	97,796	98,066	99,282	100,643	101,771	102,601
Beef cow inventory	1,000 head	32,915	33,253	33,406	33,404	33,400	33,269	33,272	33,583	34,336	35,124	35,774	36,284
Total cow inventory	1,000 head	41,920	42,311	42,400	42,053	41,962	41,749	41,689	41,942	42,642	43,386	43,998	44,455

Table 24. Pork long-term projections

Item	Units	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beginning stocks	Mil. lbs.	543	494	550	550	550	550	550	550	550	550	550	550
Commercial production	Mil. lbs.	20,685	21,069	21,850	21,400	21,183	21,086	21,151	21,372	21,699	22,090	22,515	22,848
Change from previous year	Percent	0.9	1.9	3.7	-2.1	-1.0	-0.5	0.3	1.0	1.5	1.8	1.9	1.5
Farm production	Mil. lbs.	21	20	20	20	20	20	20	20	20	20	20	20
Total production	Mil. lbs.	20,706	21,089	21,870	21,420	21,203	21,106	21,171	21,392	21,719	22,110	22,535	22,868
Imports	Mil. lbs.	1,025	1,021	1,030	1,043	1,059	1,077	1,099	1,121	1,143	1,166	1,189	1,213
Total supply	Mil. lbs.	22,274	22,604	23,450	23,013	22,812	22,733	22,820	23,063	23,412	23,826	24,274	24,631
Exports	Mil. lbs.	2,665	2,968	3,090	3,183	3,230	3,279	3,328	3,378	3,429	3,480	3,532	3,585
Ending stocks	Mil. lbs.	494	550	550	550	550	550	550	550	550	550	550	550
Total consumption	Mil. lbs.	19,115	19,086	19,810	19,280	19,032	18,904	18,942	19,135	19,433	19,796	20,192	20,496
Per capita, carcass weight	Pounds	64.4	63.8	65.6	63.3	61.9	61.0	60.6	60.7	61.1	61.7	62.4	62.8
Per capita, retail weight	Pounds	50.0	49.5	50.9	49.1	48.0	47.3	47.0	47.1	47.4	47.9	48.4	48.7
Change from previous year	Percent	-2.6	-1.0	2.9	-3.5	-2.2	-1.5	-0.7	0.2	0.7	1.0	1.1	0.7
Prices:													
Hogs, farm	\$/cwt	49.62	46.32	40.96	47.44	50.44	53.12	54.58	55.44	55.39	54.63	53.82	53.70
National base, live equivalent	\$/cwt	50.05	47.23	41.76	48.47	51.63	54.38	55.87	56.76	56.71	55.93	55.10	54.98
Deflated price	\$/cwt	25.51	23.68	21.46	22.76	23.65	24.30	24.36	24.15	23.54	22.65	21.77	21.19
Retail: pork	1982-84=100	177.7	177.3	174.0	182.7	190.1	196.8	200.9	204.6	206.3	206.3	206.4	207.8
ERS retail pork	\$/lb.	2.83	2.81	2.76	2.90	3.02	3.12	3.19	3.24	3.27	3.27	3.27	3.30
Costs and returns, farrow to finish:													
Variable expenses	\$/cwt	33.57	33.53	39.87	44.19	44.37	45.92	44.69	44.71	44.78	44.90	45.01	45.39
Fixed expenses	\$/cwt	7.60	7.72	7.81	7.86	7.89	7.93	7.96	8.01	8.05	8.10	8.16	8.19
Total cash expenses	\$/cwt	41.16	41.25	47.68	52.04	52.25	53.84	52.65	52.72	52.83	53.01	53.17	53.58
Returns above cash costs	\$/cwt	8.84	6.80	-3.04	-3.51	-0.42	0.75	3.44	4.27	4.11	3.14	2.14	0.87
Hog inventory,													
Dec. 1, previous year	1,000 head	60,975	61,449	62,500	61,800	61,209	60,945	61,123	61,723	62,612	63,674	64,829	65,736

Table 25. Young chicken long-term projections

Item	Units	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beginning stocks	Mil. lbs.	713	924	725	770	770	770	770	770	770	770	770	770
Federally inspected slaughter	Mil. lbs.	35,365	35,846	36,325	36,691	36,928	37,058	37,205	37,537	38,064	38,739	39,354	39,921
Change from previous year	Percent	3.8	1.4	1.3	1.0	0.6	0.4	0.4	0.9	1.4	1.8	1.6	1.4
Production	Mil. lbs.	34,986	35,462	35,936	36,324	36,559	36,687	36,833	37,162	37,683	38,352	38,960	39,522
Total supply	Mil. lbs.	35,733	36,427	36,697	37,130	37,365	37,493	37,639	37,968	38,489	39,158	39,766	40,328
Change from previous year	Percent	4.1	1.9	0.7	1.2	0.6	0.3	0.4	0.9	1.4	1.7	1.6	1.4
Exports	Mil. lbs.	5,203	5,411	5,530	5,516	5,583	5,664	5,762	5,842	5,932	6,017	6,106	6,196
Ending stocks	Mil. lbs.	924	725	770	770	770	770	770	770	770	770	770	770
Consumption	Mil. lbs.	29,606	30,291	30,397	30,844	31,012	31,059	31,107	31,356	31,787	32,371	32,890	33,362
Per capita, carcass weight	Pounds	99.8	101.2	100.6	101.2	100.9	100.2	99.4	99.4	99.9	100.9	101.6	102.2
Per capita, retail weight	Pounds	85.7	86.9	86.4	86.9	86.6	86.0	85.4	85.4	85.8	86.7	87.3	87.8
Change from previous year	Percent	1.7	1.4	-0.5	0.6	-0.3	-0.7	-0.7	-0.1	0.5	1.0	0.8	0.6
Prices:													
Broilers, farm	Cents/lb.	43.3	38.6	39.4	40.6	42.8	45.0	46.8	47.6	47.6	47.3	47.1	47.3
12-city market price	Cents/lb.	70.8	63.9	65.3	67.3	71.0	74.6	77.6	78.9	78.8	78.2	78.0	78.3
Deflated wholesale price	Cents/lb.	36.8	32.1	32.0	32.2	33.1	34.0	34.5	34.2	33.3	32.3	31.4	30.7
Change from previous year	Percent	-6.2	-12.6	-0.3	0.5	2.9	2.5	1.5	-0.9	-2.5	-3.2	-2.8	-2.1
Composite retail broiler price	Cents/lb.	174.1	156.1	156.0	163.8	175.5	187.0	197.0	201.8	203.5	203.7	204.8	207.5
Costs and returns:													
Total costs	Cents/lb.	66.75	66.41	68.78	71.71	72.44	74.17	73.73	74.18	74.67	75.23	75.80	76.61
Net returns	Cents/lb.	4.05	-2.48	-3.43	-4.37	-1.44	0.45	3.88	4.68	4.15	3.01	2.19	1.68

Table 26. Turkey long-term projections

Item	Units	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beginning stocks	Mil. lbs.	288	206	225	280	280	280	280	280	280	280	280	280
Federally inspected slaughter	Mil. lbs.	5,504	5,668	5,760	5,799	5,783	5,791	5,809	5,852	5,906	5,960	6,014	6,072
Change from previous year	Percent	0.9	3.0	1.6	0.7	-0.3	0.1	0.3	0.7	0.9	0.9	0.9	1.0
Production	Mil. lbs.	5,432	5,594	5,685	5,724	5,708	5,716	5,734	5,776	5,830	5,882	5,935	5,993
Total supply	Mil. lbs.	5,720	5,800	5,910	6,004	5,988	5,996	6,014	6,056	6,110	6,162	6,215	6,273
Change from previous year	Percent	-0.3	1.4	1.9	1.6	-0.3	0.1	0.3	0.7	0.9	0.9	0.9	0.9
Exports	Mil. lbs.	570	544	585	543	549	557	567	575	584	592	601	610
Ending stocks	Mil. lbs.	206	225	280	280	280	280	280	280	280	280	280	280
Consumption	Mil. lbs.	4952	5,040	5,049	5,185	5,163	5,163	5,171	5,205	5,250	5,294	5,339	5,387
Per capita	Pounds	16.7	16.8	16.7	17.0	16.8	16.6	16.5	16.5	16.5	16.5	16.5	16.5
Change from previous year	Percent	-2.1	0.9	-0.7	1.8	-1.3	-0.9	-0.7	-0.2	0.0	0.0	0.0	0.1

Prices:

Turkey, farm	Cents/lb.	44.8	48.6	45.4	45.0	46.5	49.3	51.4	52.8	53.6	53.5	53.6	54.0
Hen turkey (whsle.) East	Cents/lb.	73.4	78.0	73.0	72.4	74.7	79.2	82.7	84.9	86.1	86.1	86.2	86.9
Deflated hen turkey	Cents/lb.	37.8	39.2	35.8	34.6	34.9	36.1	36.7	36.8	36.4	35.5	34.7	34.1
Retail frozen turkey	Cents/lb.	107.2	112.4	109.3	108.3	111.1	114.1	115.7	115.6	114.2	111.4	109.0	107.2
Retail: poultry	1982-84=100	185.3	182.0	184.0	191.0	202.9	214.7	224.4	228.8	229.8	228.8	228.8	230.5

Costs and returns:

Total costs	Cents/lb.	68.80	62.55	66.97	70.15	71.56	72.91	72.13	72.43	72.72	73.06	73.36	73.90
Net returns	Cents/lb.	4.60	15.44	6.04	2.25	3.18	6.31	10.58	12.51	13.39	12.99	12.83	12.99

Table 27. Egg long-term projections

Item	Units	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Beginning stocks	Mil. doz.	14	16	16	16	16	16	16	16	16	16	16	16
Production	Mil. doz.	7,504	7,572	7,682	7,720	7,736	7,775	7,829	7,899	7,978	8,066	8,155	8,245
Change from previous year	Percent	0.9	0.9	1.5	0.5	0.2	0.5	0.7	0.9	1.0	1.1	1.1	1.1
Imports	Mil. doz.	9	8	9	10	10	10	10	10	10	10	10	10
Total supply	Mil. doz.	7,527	7,596	7,707	7,746	7,761	7,800	7,854	7,925	8,004	8,092	8,180	8,270
Change from previous year	Percent	0.8	0.9	1.5	0.5	0.2	0.5	0.7	0.9	1.0	1.1	1.1	1.1
Hatching use	Mil. doz.	1,000	995	990	998	1,003	1,007	1,009	1,015	1,024	1,036	1,048	1,060
Exports	Mil. doz.	203	187	195	198	201	204	207	210	213	216	219	222
Ending stocks	Mil. doz.	16	16	16	16	16	16	16	16	16	16	16	16
Consumption	Mil. doz.	6,308	6,397	6,506	6,534	6,541	6,573	6,622	6,684	6,751	6,824	6,897	6,973
Per capita	Number	255.1	256.4	258.4	257.3	255.3	254.4	254.0	254.2	254.6	255.2	255.8	256.4
Change from previous year	Percent	-0.8	0.5	0.8	-0.5	-0.8	-0.4	-0.1	0.1	0.1	0.2	0.2	0.3

Prices:

Eggs, farm	Cents/doz.	54.5	57.2	65.6	73.1	79.8	84.0	85.7	86.5	87.4	88.2	89.0	89.9
New York, Grade A large	Cents/doz.	65.5	69.0	78.0	87.0	95.0	100.0	102.0	103.0	104.0	105.0	106.0	107.0
Deflated wholesale prices	Cents/doz.	33.8	34.7	38.2	41.6	44.3	45.5	45.3	44.6	44.0	43.3	42.6	42.0
Retail, Grade A, large	Cents/doz.	122	130	139	156	171	180	184	185	187	189	191	193
Retail: Eggs	1982-84=100	144.1	151.2	162.0	182.5	201.4	213.0	218.3	221.4	224.5	227.7	230.9	234.0

Costs and returns:

Total costs	Cents/doz.	71.91	71.84	85.41	94.66	97.19	99.97	97.35	97.40	97.54	97.81	98.04	98.85
Net returns	Cents/doz.	-6.41	-2.84	-7.41	-7.66	-2.19	0.03	4.65	5.60	6.46	7.19	7.96	8.15

Table 28. Dairy long-term projections

Item	Units	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Production data:													
Number of cows	1,000	9,041	9,110	9,045	8,950	8,860	8,775	8,710	8,650	8,595	8,550	8,510	8,465
Milk per cow	Pounds	19,577	19,955	20,235	20,545	20,750	21,030	21,340	21,730	22,010	22,355	22,705	23,120
Milk production	Bil. lbs.	177.0	181.9	183.0	183.9	183.8	184.5	185.9	188.0	189.2	191.1	193.2	195.7
Farm use	Bil. lbs.	1.1	1.1	1.0	0.8	0.8	0.7	0.7	0.6	0.5	0.5	0.4	0.4
Commercial use, milk equivalent:													
Milkfat basis	Bil. lbs.	179.7	184.3	188.6	189.0	188.8	189.8	191.2	193.4	194.8	196.8	199.1	201.7
Skim solids basis	Bil. lbs.	180.6	184.8	188.2	188.6	188.6	189.3	190.6	192.8	194.2	196.2	198.4	201.0
Net removals, milk equivalent:													
Milkfat basis	Bil. lbs.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Skim solids basis	Bil. lbs.	-1.0	0.7	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prices:													
All milk	\$/cwt	15.14	12.85	13.85	14.80	15.45	16.00	16.35	16.60	16.65	16.80	16.80	16.90
Retail, all dairy products	1982-84=100	182.4	181.4	185.5	191.5	196.5	201.0	205.0	206.0	206.0	206.5	206.5	207.0

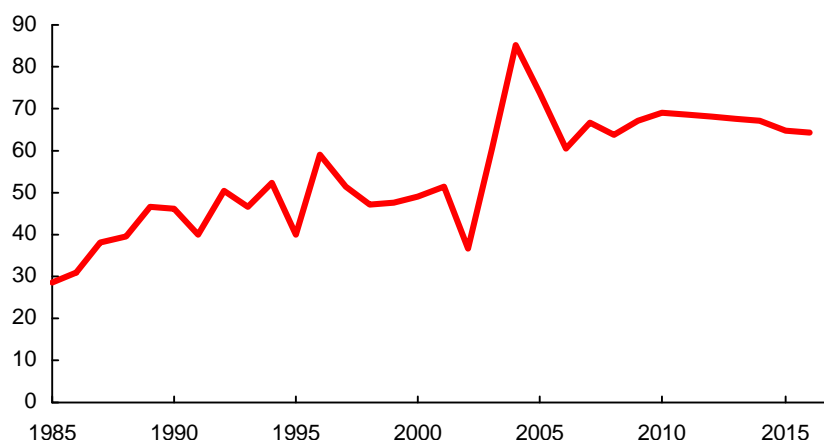
U.S. Agricultural Sector Aggregate Indicators

Farm Income, Food Prices and Expenditures, and U.S. Trade Value

Large increases in corn-based ethanol production affect production, use, and prices of farm commodities throughout the sector. Steady domestic and international economic growth supports gains in consumption, trade, and prices. These factors combine to result in higher market prices and cash receipts. Rising production expenses and lower government payments offset some of the gains in cash receipts and other sources of farm income, although net farm income remains strong through the projections. U.S. agricultural export values rise through the projections. On average, consumer food prices are projected to rise more slowly than the general rate of inflation over the next decade, although increases in meat prices push food prices up faster in some years.

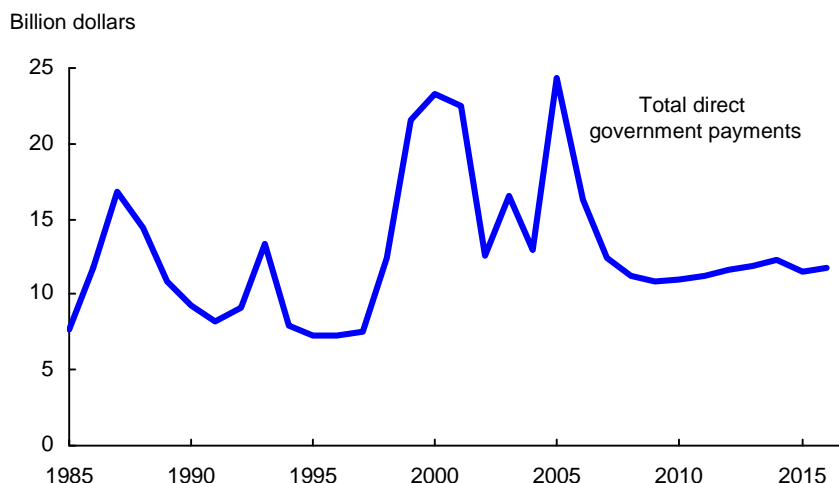
Net farm income

Billion dollars



Strong domestic use and export demand push U.S. net farm income from its 2006 level of \$60.6 billion to an average of \$66.7 billion annually over the next 10 years.

- Large increases in cash receipts over the next several years mostly result from expansion of corn-based ethanol production. Lower government payments, due to higher commodity prices, and rising farm production expenses offset gains in cash receipts in the later years of the projections, resulting in some reduction in net farm income after 2010. Nonetheless, net incomes remain historically high in the mid- to upper-\$60 billion range, well above the average in the 1990s of about \$48 billion.

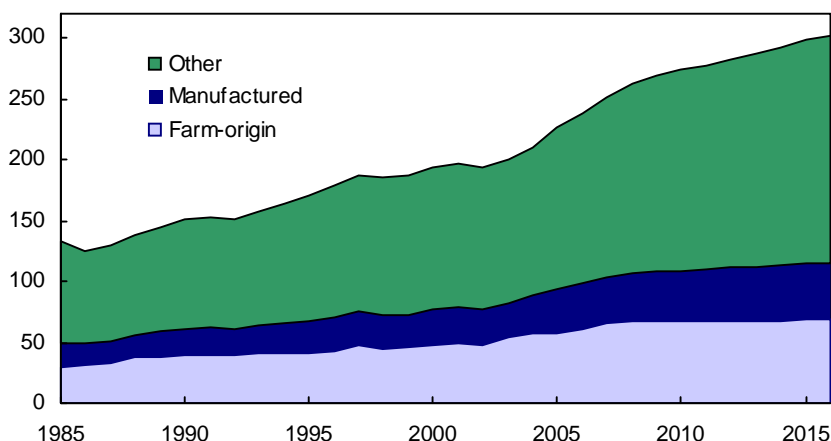
Direct government payments

Direct government payments to farmers are projected to fall from \$16 billion in 2006 to an average of less than \$12 billion annually over the projection period, largely due to higher commodity prices and correspondingly lower price-dependent program benefits.

- To account for the possibility of both higher and lower prices than the deterministic (point estimate) prices, a stochastic estimation process is used to project expected direct government payments. This process captures potential variation in farm program benefits due to stochastic (random) shocks to yields.
- Strong demand for corn for ethanol production results in projected market prices for corn and other crops rising to levels that lower government payments significantly. For example, even with stochastic considerations, payments for price-sensitive marketing loan benefits and counter-cyclical payments for feed grains are minimal, totaling less than \$200 million over calendar years 2007-16 for the projections scenario in this report. In contrast, with higher crop prices, use of land for production is more valuable, so rental rates for land in the Conservation Reserve Program (CRP) rise and push overall annual CRP payments to more than \$3 billion toward the end of the projections. As a result, fixed direct payments under the 2002 Farm Act and conservation payments account for a larger share of total direct government payments.
- With lower government payments, the agriculture sector relies on the market for more of its income and the share of income provided by government payments falls. Government payments, which represented more than 8 percent of gross cash income in 2005, account for less than 4 percent during most of the projection period. Conversely, cash receipts plus farm-related income rises to over 96 percent of gross cash income.

Farm production expenses

Billion dollars

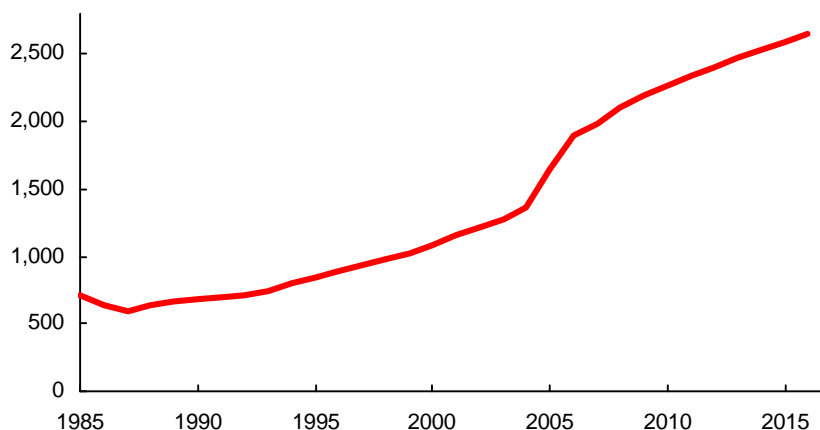


Total production expenses increase at near the general inflation rate from 2007-16. These expenses are divided into three categories in the chart above: farm-origin (seed, feed, and feeder livestock), manufactured (fuel, fertilizer, pesticides, and electricity), and other (labor, interest, net rent to nonoperator landlords, and other expenses).

- The largest percentage increase is for “other” expenses, reflecting increases in labor expenses and interest costs. Labor expenses rise as sector output increases and wage rates rise. Projected increases in interest costs reflect higher interest rates, as well as increased debt facilitated by higher income. Increases for net rent and other operating expenses reflect higher cash receipts and profitability as well as larger acreage and sector output.
- Projected manufactured-input expenses reflect high oil prices and larger crop production. After increases in 2004-06 that were mostly due to the rising oil prices, these expenses increase at about the general rate of inflation through the rest of the projections.
- Farm-origin expenses rise less than the general inflation rate. Feed expenses rise the most as demand for corn for use in the production of ethanol competes with feed demand and pushes corn prices higher.
- Cash operating margins tighten over the projections period as expenses rise while decreases in government payments slow gains in gross cash incomes. By 2016, cash expenses represent about 80 percent of gross cash income, compared with an average of 73 percent in 2000-05.

Farmland value

Dollars per acre

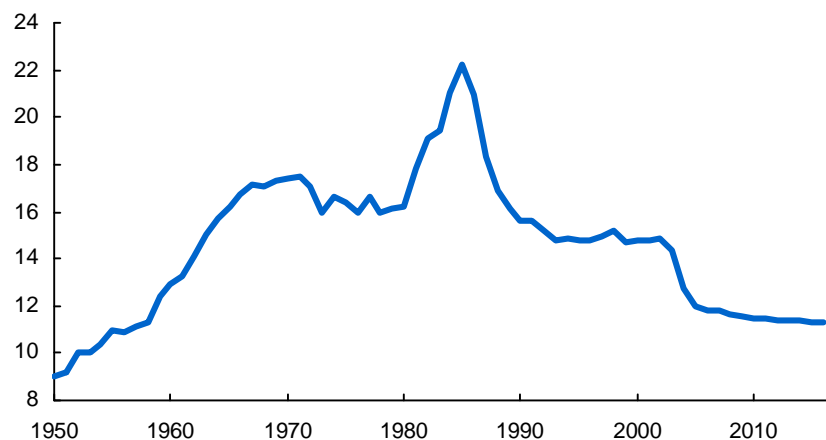


Strong and stable net farm income assists in asset accumulation and debt management.

- Gains in farmland values and real estate assets (representing about 80 percent of total farm assets) reflect increases in agricultural revenues, particularly in the first several years of the projections. Additionally, as the general economy continues to expand, demand for land for nonagricultural uses, such as housing and recreation, contributes to rising farmland values.

Debt-to-asset ratios

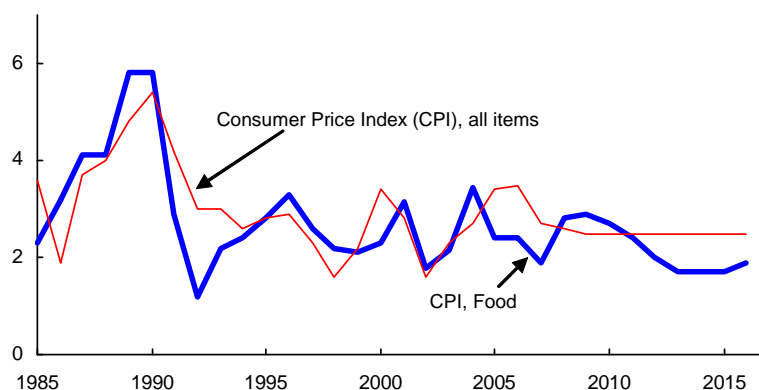
Percent



- Higher incomes facilitate increases in farm debt in the projections. Nonetheless, debt moves up less rapidly than farm asset values, resulting in gains in overall farm sector equity. The debt-to-asset ratio declines moderately from 11.8 percent in 2006 to about 11.3 percent at the end of the projections, continuing a decline from over 20 percent in the mid-1980s.

Food inflation

Percent change

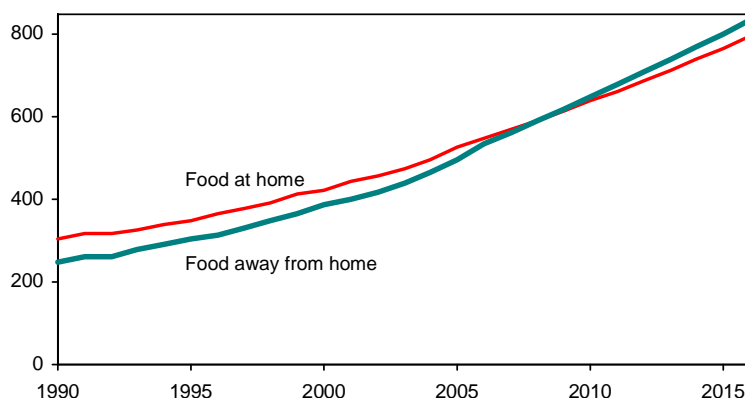


On average over the next 10 years, retail food prices are projected to increase less than the general inflation rate, although food price increases are somewhat larger than general inflation in some years.

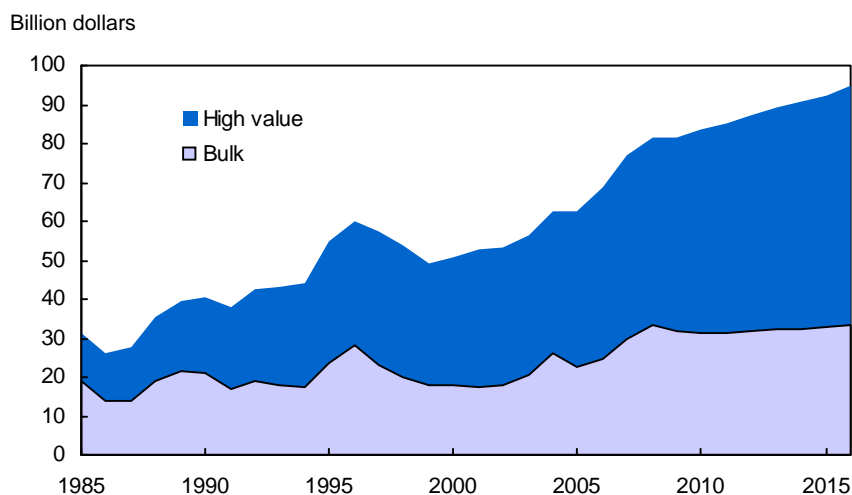
- Consumer prices for red meats, poultry, and eggs exceed the general inflation rate in 2008-10 as the livestock sector adjusts to higher feed costs due to the expansion in corn-based ethanol production. As a result, overall retail food prices rise faster than the general inflation rate in those years.
- Among foods purchased for consumption at home, projected price increases are generally strongest for more highly processed foods such as cereals and bakery products and fats and oils. Prices for these foods are related more to processing and marketing costs than to farm-level prices and, therefore, rise at a rate near the general inflation rate.
- Prices for food away from home reflect the overall inflation rate as well as some effect of price movements for retail meat and poultry. Competition in the fast-food and food service industries tend to moderate price increases for food away from home.

Food expenditures

Billion dollars



- Expenditures for meals prepared away from home account for a growing share of food spending, reaching about 51 percent of total food expenditures by 2016.

U.S. agricultural export value: Bulk and high value 1/

1/ Bulk commodities include wheat, rice, feed grains, soybeans, cotton, and tobacco. High-value products include semi-processed and processed grains and oilseeds, animals and animal products, horticultural products, and sugar and tropical products.

The value of U.S. agricultural exports rises in the projections due to increases in both export volumes and prices. Strong domestic economic growth and consumer demand boost agricultural imports.

- Steady world economic growth, particularly in developing countries, provides a foundation for gains in trade and U.S. agricultural exports. However, competition in global markets remains strong. Higher commodity prices due to expansion of global biofuel demand also contribute to the gains in export values. Overall, the value of U.S. agricultural exports is projected to grow from \$77 billion in fiscal year 2007 to nearly \$95 billion in 2016.
- The initial increases in bulk commodity prices strengthen bulk export values, pushing the share of exports accounted for by high-value products (HVP) down over the next few years. In the longer run, HVP export values again grow in importance, representing about 65 percent of the value of U.S. exports by the end of the projection period. Much of the growth in HVP exports is for animal products and horticultural products. Most of the growth in the value of bulk commodity exports (grains, oilseeds, cotton, and tobacco) reflects expected price increases and gains in volume for grains.
- U.S. agricultural import values rise to about \$93 billion in 2016, boosted by gains in consumer income and demand for a large variety of foods. Strong growth in horticultural imports is assumed to continue, contributing over half of the overall agricultural import increase.
- Overall, the U.S. agricultural trade surplus rises to over \$10 billion in the initial years of the projections, largely due to the gains in bulk commodity prices and bulk export values. The agricultural trade balance then narrows through the remainder of the projections as bulk export growth slows and imports continue steady gains.

Table 29. Farm receipts, expenses, and incomes in nominal dollars

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Billion dollars</i>												
Cash receipts:												
Crops	114.0	121.6	133.5	141.5	145.7	148.1	149.1	150.8	152.7	154.6	156.7	158.8
Livestock and products	125.0	121.2	125.2	128.9	134.3	137.1	139.6	140.7	141.1	142.1	142.9	144.2
All commodities	238.9	242.7	258.7	270.4	280.1	285.2	288.7	291.5	293.8	296.7	299.7	303.0
Farm-related income	17.6	18.0	18.7	19.2	19.6	20.1	20.5	21.0	21.5	21.9	22.4	22.9
Government payments	24.3	16.3	12.4	11.2	10.8	11.0	11.3	11.6	11.9	12.3	11.5	11.7
Gross cash income	280.9	277.1	289.8	300.8	310.5	316.3	320.5	324.1	327.2	330.9	333.6	337.6
Cash expenses	199.7	210.4	222.6	233.1	239.2	243.9	248.3	252.8	257.4	262.0	266.7	271.1
Net cash income	81.2	66.7	67.2	67.7	71.3	72.4	72.3	71.3	69.8	69.0	66.9	66.6
Value of inventory change	0.4	-0.8	4.3	1.7	0.3	0.8	0.6	1.0	1.8	1.9	1.7	1.3
Non-money income	18.5	22.2	23.8	23.4	24.8	25.3	25.7	26.2	26.6	27.0	27.5	27.9
Gross farm income	299.8	298.4	318.0	325.9	335.6	342.3	346.9	351.2	355.6	359.9	362.8	366.8
Noncash expenses	18.0	18.9	19.6	19.7	19.8	20.0	20.3	20.5	20.8	21.0	21.2	21.5
Operator dwelling expenses	8.3	8.6	9.1	9.2	9.3	9.5	9.6	9.7	9.8	9.9	10.0	10.1
Total production expenses	226.0	237.8	251.3	262.0	268.4	273.3	278.1	283.0	288.0	292.9	297.9	302.7
Net farm income	73.8	60.6	66.6	64.0	67.2	69.0	68.8	68.2	67.6	67.0	64.8	64.1
Farm assets	1,805.3	1,919.4	1,994.3	2,090.8	2,180.8	2,251.2	2,314.7	2,369.8	2,426.0	2,481.5	2,536.8	2,586.7
Farm debt	215.5	226.2	235.3	243.5	252.0	258.9	265.3	270.6	276.1	281.6	287.2	292.0
Farm equity	1,589.8	1,693.2	1,759.0	1,847.3	1,928.9	1,992.4	2,049.3	2,099.1	2,150.0	2,199.9	2,249.6	2,294.7
<i>Percent</i>												
Debt/equity ratio	13.6	13.4	13.4	13.2	13.1	13.0	12.9	12.9	12.8	12.8	12.8	12.7
Debt/assets ratio	11.9	11.8	11.8	11.6	11.6	11.5	11.5	11.4	11.4	11.3	11.3	11.3

Table 30. Farm receipts, expenses, and incomes in 1996 dollars

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Billion 1996 dollars¹</i>												
Cash receipts:												
Crops	94.9	98.2	105.3	109.1	109.9	109.3	107.6	106.6	105.5	104.6	103.7	102.9
Livestock and products	104.0	97.9	98.7	99.3	101.4	101.2	100.8	99.4	97.5	96.2	94.6	93.4
All commodities	198.9	196.0	204.0	208.4	211.3	210.5	208.4	206.0	203.0	200.8	198.3	196.2
Farm-related income	14.7	14.6	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.9	14.9
Government payments	20.3	13.2	9.8	8.7	8.2	8.1	8.2	8.2	8.2	8.3	7.6	7.6
Gross cash income	233.9	223.8	228.6	231.8	234.3	233.4	231.4	229.0	226.1	223.9	220.8	218.7
Cash expenses	166.2	169.9	175.6	179.6	180.5	179.9	179.2	178.6	177.9	177.3	176.5	175.6
Net cash income	67.6	53.9	53.0	52.2	53.8	53.4	52.2	50.4	48.2	46.7	44.3	43.1
Value of inventory change	0.3	-0.6	3.4	1.3	0.2	0.6	0.5	0.7	1.3	1.3	1.1	0.8
Non-money income	15.4	17.9	18.8	18.0	18.7	18.6	18.6	18.5	18.4	18.3	18.2	18.1
Gross farm income	249.6	241.0	250.8	251.1	253.2	252.6	250.4	248.2	245.7	243.5	240.1	237.6
Noncash expenses	15.0	15.2	15.5	15.1	14.9	14.8	14.6	14.5	14.3	14.2	14.0	13.9
Operator dwelling expenses	6.9	6.9	7.2	7.1	7.1	7.0	6.9	6.8	6.8	6.7	6.6	6.6
Total production expenses	188.1	192.1	198.2	201.9	202.5	201.7	200.8	200.0	199.0	198.2	197.2	196.1
Net farm income	61.5	48.9	52.6	49.3	50.7	50.9	49.6	48.2	46.7	45.3	42.9	41.5
Farm assets	1,502.8	1,550.3	1,572.9	1,611.1	1,645.3	1,661.0	1,671.1	1,674.8	1,676.6	1,679.1	1,679.0	1,675.4
Farm debt	179.4	182.7	185.6	187.6	190.1	191.0	191.6	191.3	190.8	190.5	190.1	189.1
Farm equity	1,323.4	1,367.6	1,387.3	1,423.4	1,455.2	1,470.0	1,479.5	1,483.5	1,485.9	1,488.6	1,488.9	1,486.3

1/ Nominal dollar values divided by the GDP chain-type price index.

Table 31. Consumer food price indexes and food expenditures, long-term projections

CPI category	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>1982-84=100</i>												
Consumer price indexes:												
All food	190.7	195.2	198.9	204.4	210.3	216.0	221.2	225.6	229.5	233.3	237.2	241.6
Food away from home	193.4	199.4	205.0	210.7	217.0	223.1	228.9	234.4	239.6	244.9	250.3	256.1
Food at home	189.8	193.1	195.9	201.4	207.1	212.7	217.5	221.3	224.3	227.4	230.4	233.9
Meats	187.5	188.8	186.6	193.3	201.5	208.7	213.9	216.8	217.9	218.4	219.0	220.7
Beef and veal	200.4	202.1	201.0	207.5	217.8	226.5	233.1	235.4	235.5	235.6	235.9	237.3
Pork	177.7	177.3	174.0	182.7	190.1	196.8	200.9	204.6	206.3	206.3	206.4	207.8
Other meats	177.5	180.7	177.0	181.5	185.6	189.6	192.9	196.1	198.9	201.2	203.6	206.4
Poultry	185.3	182.0	184.0	191.0	202.9	214.7	224.4	228.8	229.8	228.8	228.8	230.5
Fish and seafood	200.1	209.5	216.8	223.3	228.9	234.6	240.5	246.5	252.7	259.0	265.5	272.1
Eggs	144.1	151.2	162.0	182.5	201.4	213.0	218.3	221.4	224.5	227.7	230.9	234.0
Dairy products	182.4	181.4	185.5	191.5	196.5	201.0	205.0	206.0	206.0	206.5	206.5	207.0
Fats and oils	167.7	168.0	172.3	177.1	181.6	186.0	190.4	194.0	197.3	200.9	204.3	208.0
Fruits and vegetables	241.4	252.9	255.5	260.5	265.4	270.5	275.7	281.0	286.4	292.0	297.6	303.4
Sugar and sweets	165.2	171.5	174.5	177.0	179.5	184.0	188.1	192.1	195.9	199.8	203.7	207.8
Cereals and bakery products	209.0	212.8	218.7	223.8	228.6	234.0	239.7	245.5	251.3	257.4	263.4	269.6
Nonalcoholic beverages	144.4	147.4	150.5	153.7	156.9	160.2	163.6	167.0	170.5	174.1	177.8	181.5
Other foods	182.5	185.0	188.0	191.0	193.8	196.7	199.7	202.8	205.8	209.0	212.1	215.3
<i>Billion dollars</i>												
Food expenditures:												
All food	1,023.2	1,088.1	1,135.9	1,184.1	1,235.9	1,288.9	1,342.9	1,397.6	1,453.5	1,511.4	1,571.8	1,635.5
Food at home	527.0	550.2	572.2	593.4	615.8	638.9	663.0	687.8	713.7	740.5	768.5	797.5
Food away from home	496.2	537.9	563.7	590.7	620.1	650.0	679.9	709.8	739.8	770.9	803.3	838.0

Table 32. Changes in consumer food prices, long-term projections

CPI category	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Percent</i>												
All food	2.4	2.4	1.9	2.8	2.9	2.7	2.4	2.0	1.7	1.7	1.7	1.9
Food away from home	3.1	3.1	2.8	2.8	3.0	2.8	2.6	2.4	2.2	2.2	2.2	2.3
Food at home	1.9	1.7	1.5	2.8	2.8	2.7	2.3	1.7	1.4	1.4	1.3	1.5
Meats	2.3	0.7	-1.2	3.6	4.2	3.6	2.5	1.4	0.5	0.2	0.3	0.8
Beef and veal	2.6	0.8	-0.5	3.2	5.0	4.0	2.9	1.0	0.0	0.0	0.1	0.6
Pork	2.0	-0.2	-1.9	5.0	4.1	3.5	2.1	1.8	0.8	0.0	0.0	0.7
Other meats	2.4	1.8	-2.0	2.5	2.3	2.2	1.7	1.7	1.4	1.2	1.2	1.4
Poultry	2.0	-1.8	1.1	3.8	6.2	5.8	4.5	2.0	0.4	-0.4	0.0	0.7
Fish and seafood	3.0	4.7	3.5	3.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Eggs	-13.7	4.9	7.1	12.7	10.4	5.8	2.5	1.4	1.4	1.4	1.4	1.3
Dairy products	1.2	-0.5	2.3	3.2	2.6	2.3	2.0	0.5	0.0	0.2	0.0	0.2
Fats and oils	-0.1	0.2	2.6	2.8	2.5	2.4	2.4	1.9	1.7	1.8	1.7	1.8
Fruits and vegetables	3.7	4.8	1.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9
Sugar and sweets	1.2	3.8	1.7	1.4	1.4	2.5	2.2	2.1	2.0	2.0	2.0	2.0
Cereals and bakery products	1.5	1.8	2.8	2.3	2.1	2.4	2.4	2.4	2.4	2.4	2.3	2.4
Nonalcoholic beverages	2.8	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Other foods	1.6	1.4	1.6	1.6	1.5	1.5	1.5	1.6	1.5	1.6	1.5	1.5

Table 33. Summary of U.S. agricultural trade long-term projections, fiscal years

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Billion dollars</i>												
Agricultural exports (value):												
Livestock, poultry, and dairy	12.2	13.4	14.2	14.8	15.6	16.3	17.0	17.4	17.8	18.2	18.5	19.0
Livestock, poultry, and products	10.5	11.6	12.4	12.9	13.6	14.2	14.8	15.3	15.6	16.0	16.3	16.8
Dairy products	1.7	1.8	1.8	1.9	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2
Grain and feeds	16.0	18.3	22.1	22.9	22.7	23.3	23.5	24.1	24.6	25.1	25.6	26.2
Coarse grains	5.3	6.8	9.6	10.2	10.1	10.5	10.3	10.5	10.6	10.7	10.7	11.0
Oilseeds and products	11.0	10.7	12.4	14.2	12.4	12.5	12.1	12.3	12.3	12.4	12.5	12.8
Soybeans and products	8.8	8.3	9.9	11.7	9.8	9.7	9.3	9.3	9.2	9.2	9.3	9.3
Horticultural products	14.9	16.7	18.4	18.9	19.5	20.1	20.6	21.2	21.9	22.5	23.2	23.9
Fruits and vegetables, fresh	4.1	4.5	4.7	4.8	4.9	5.1	5.2	5.3	5.5	5.6	5.8	5.9
Fruits and vegetables, processed	3.5	3.9	4.1	4.2	4.3	4.4	4.4	4.5	4.6	4.7	4.8	4.9
Tobacco, unmanufactured	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4
Cotton and linters	3.9	4.7	5.0	5.9	6.0	6.1	6.2	6.3	6.4	6.4	6.5	6.5
Other exports	3.6	3.9	3.8	3.8	3.9	4.1	4.3	4.5	4.6	4.7	4.8	4.9
Total agricultural exports	62.5	68.7	77.0	81.7	81.3	83.7	85.1	87.2	88.9	90.7	92.5	94.8
Bulk commodity exports	22.7	24.6	29.7	33.2	31.9	31.4	31.3	31.8	32.2	32.5	32.9	33.5
High-value product exports	39.9	44.1	47.3	48.5	49.5	52.2	53.8	55.4	56.8	58.2	59.6	61.3
High-value product share	63.8%	64.3%	61.4%	59.4%	60.8%	62.4%	63.2%	63.5%	63.8%	64.1%	64.4%	64.7%
<i>Million metric tons</i>												
Agricultural exports (volume):												
Bulk commodity exports	114.3	121.1	124.9	118.8	112.0	108.5	111.2	114.0	116.1	118.4	120.7	122.8
<i>Billion dollars</i>												
Agricultural imports (value):												
Livestock, poultry, and dairy	11.1	11.5	12.0	12.4	12.8	13.2	13.6	13.9	14.1	14.3	14.6	14.8
Livestock, poultry, and products	8.2	8.5	9.0	9.3	9.7	10.0	10.3	10.6	10.7	10.8	11.0	11.2
Dairy products	2.5	2.6	2.6	2.7	2.7	2.8	2.9	2.9	3.0	3.1	3.1	3.2
Grain and feeds	4.3	4.9	5.2	5.4	5.6	5.9	6.0	6.2	6.5	6.7	6.9	7.2
Grain products	3.2	3.4	3.6	3.7	3.9	4.0	4.2	4.4	4.6	4.7	4.9	5.1
Oilseeds and products	3.0	3.5	3.6	3.7	3.8	4.0	4.1	4.3	4.4	4.5	4.7	4.9
Vegetable oils	2.0	2.4	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.5	3.6
Horticultural products	26.9	29.2	31.2	32.4	33.6	34.9	36.2	37.6	39.0	40.5	42.0	43.6
Fruits and vegetables, fresh	7.7	8.7	9.3	9.6	10.0	10.4	10.8	11.2	11.6	12.0	12.4	12.9
Fruits and vegetables, processed	5.0	5.4	5.7	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.4	7.6
Wine and beer	6.7	7.4	7.9	8.2	8.6	8.9	9.3	9.7	10.1	10.5	10.9	11.4
Sugar and tropical products	11.4	13.6	15.4	15.8	16.3	16.9	17.4	18.0	18.6	19.2	19.9	20.5
Sugar and related products	2.5	3.3	3.9	4.0	4.1	4.3	4.4	4.5	4.7	4.8	4.9	5.1
Cocoa, coffee, and products	5.4	5.8	6.1	6.3	6.5	6.7	6.9	7.2	7.4	7.7	7.9	8.2
Other imports	1.2	1.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7
Total agricultural imports	57.7	64.0	69.0	71.3	73.9	76.5	79.0	81.6	84.2	86.9	89.7	92.7
Net agricultural trade balance	4.8	4.7	8.0	10.4	7.5	7.2	6.1	5.6	4.7	3.8	2.7	2.1

Sources: U.S. Department of Agriculture and Bureau of Census, U.S. Department of Commerce.

Notes: The projections were completed in November 2006 based on policy decisions and other information known at that time. For updates of the nearby year forecasts, see USDA's *Outlook for U.S. Agricultural Trade* report, published in March, May, and November. Other exports includes seeds, sugar and tropical products, and beverages and preparations. Bulk commodity exports covers wheat, rice, feed grains, soybeans, cotton, and tobacco. High-value product (HVP) exports is calculated as total exports less the bulk commodities. HVP's include semiprocessed and processed grains and oilseeds, animals and animal products, horticultural products, and sugar and tropical products. Other imports include cotton, tobacco, and planting seeds.

Agricultural Trade

With strong world economic growth and increasing demand for agricultural products, global agricultural trade is projected to rise throughout the coming decade. Rapid expansion of ethanol and biodiesel production in some countries is projected to have a significant impact on global demand for feedstocks, such as corn, vegetable oils, and sugarcane, and on world price relationships. As a result, feeds fed primarily for their energy content become relatively more expensive than those fed for protein. Producers of pork and poultry are most affected, but users of grain for food also face higher prices. The continued expansion of oilseed crushing capacity in a number of importing countries is expected to strengthen import demand for total oilseeds, while increasing biodiesel production will boost the demand for total vegetable oils.

The growing economies of developing countries provide a foundation for gains in demand for agricultural products and increases in trade. Broad-based economic growth and increasing urbanization lead to diet diversification in most developing regions, generating increased demand for livestock products and feeds, as well as for fruits, vegetables, and processed products. Developing-country import demand is further reinforced by population growth rates that remain nearly double the growth rates of developed countries.

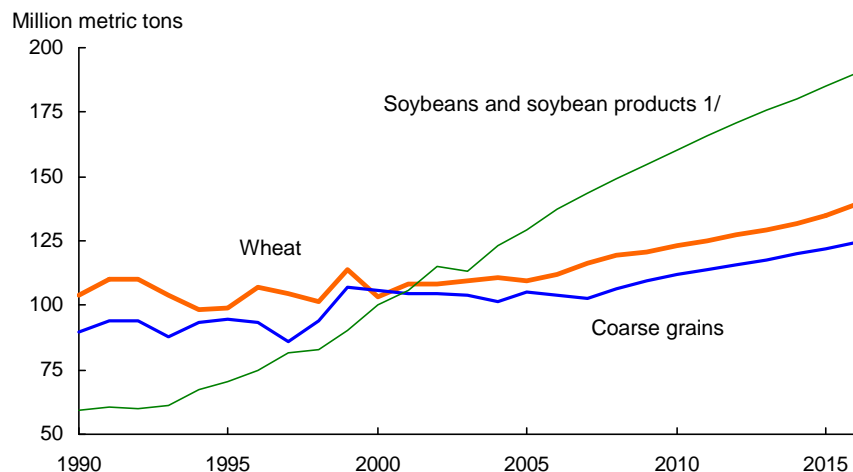
International trade in animal products, however, remains heavily dependent on demand from developed countries and from market access achieved under existing trade agreements. Trade is also affected by concerns regarding diseases such as bovine spongiform encephalopathy (BSE), avian influenza (AI), and foot-and-mouth disease (FMD). Strong policy support for domestically produced meat is expected to motivate growth in feed grain imports, especially in those regions where limited land availability or agroclimatic conditions preclude expanding domestic crop production, such as in North Africa, the Middle East, and East and Southeast Asia.

Traditional exporters of a wide range of agricultural commodities such as Argentina, Australia, Canada, and the European Union (EU-25) remain important in the coming decade. But an increasing presence in export markets is expected from countries that are making significant investments in their agricultural sectors, including Brazil, Russia, Ukraine, and Kazakhstan.

Trade projections to 2016 are founded on assumptions concerning trends in foreign area, yields, and use, and on the assumption that countries comply with existing bilateral and multilateral agreements affecting agriculture and agricultural trade. The projections incorporate the effects of trade agreements and domestic policy reforms in place or signed by November 2006.

Domestic agricultural and trade policies in individual foreign countries are assumed to continue to evolve along their current paths, based on the consensus judgment of USDA's regional and commodity analysts. In particular, economic and trade reforms underway in many developing countries are assumed to continue. Similarly, the development and use of technology and changes in consumer preferences are assumed to continue evolving based on past performance and analysts' judgments regarding future developments.

NOTE: The EU-25 expanded to 27 countries with the accession of Romania and Bulgaria on January 1, 2007. EU projections in this report pertain to the EU-25. Romania and Bulgaria are included in the Other Europe region, although adjustments were made to account for accession.

Global trade: Wheat, coarse grains, and soybeans and soybean products

1/ Soybeans and soybean meal in soybean-equivalent units.

Global trade in soybeans and soybean products has risen rapidly since the early 1990s, and has surpassed not only wheat—the traditional leader in agricultural commodity trade—but also total coarse grains (corn, barley, sorghum, rye, oats, millet, and mixed grains). Continued strong growth in global demand for vegetable oil and protein meal, particularly in China, is expected to maintain soybean and soybean-product trade well above wheat and coarse grains trade throughout the next decade.

- Wheat, coarse grains, and oilseeds (including soybeans) compete with each other and with other crops for limited temperate cropland. Higher prices for vegetable oils, partially the result of increased demand for biodiesel, are bringing previously uncropped land in tropical regions of Brazil and Indonesia into soybean and palm oil production. Biodiesel demand also enhances trade in vegetable oils.
- In the projections, the growth in total area planted to all crops rises less than a half-percent a year in most countries. Area expansion occurs more rapidly in countries with a reserve of available land and policies that enable farmers to respond to higher projected world prices. Such countries include Brazil, Argentina, other South American countries, some Eastern European countries, and Ukraine. About two-thirds of the growth in global production is derived from rising yields. The growth rate in crop yields has slowed somewhat during the last several decades and is projected to continue to do so.
- Slower growth in aggregate crop production is offset by slower growth in world population. Nonetheless, population is a significant factor driving overall growth in demand for agricultural products. Additionally, rising per capita income in many countries generates growth in demand for vegetable oils, livestock products, and horticultural products.
- Virtually no growth in overall global wheat and coarse grain trade occurred in the 1990s, largely reflecting reductions in imports by the former Soviet Union (FSU) and Central and Eastern Europe (CEE). In the coming decade, overall gains in global grain trade come from a broad range of countries, particularly from countries in Africa and the Middle East. Also, China exports less grain and imports more.

Global Demand for Biofuel Feedstocks

The increasing demand for feedstocks used in the production of biofuels is expected to have a significant impact on agricultural markets over the coming decade. A number of new supply-and-demand factors will be important, but there is uncertainty related to each factor. The USDA projections are based on various assumptions about these supply and demand factors.

The future price of petroleum is one of these key factors (see page 15). Increasing energy costs have provided an incentive for many governments to encourage the production of petroleum substitutes from renewable agricultural crops. Increases or decreases in petroleum prices in the future will affect the commercial viability of petroleum substitutes.

Major substitution of crop-based fuel for petroleum took place in Brazil in the last several decades, as Brazil used sugarcane to produce ethanol and then used ethanol on a large scale to fuel vehicles. The EU has used rapeseed oil to produce biodiesel for fuel use in relatively large quantities over the last decade. In both instances, government interventions were critical to the development of biofuels.

Currently, many other countries are making new investments in biofuel production capacity. Although corn and sugarcane for ethanol and rapeseed oil for biodiesel are the main feedstocks envisioned for these investments, other feedstocks are also being used, such as barley, wheat, rye, wine, and cassava for ethanol production and a variety of vegetable oils, recycled oils, and fats from the food industry for biodiesel. There is considerable interest in ethanol production from cellulosic feedstocks, but widespread commercial production during the next decade faces many challenges.

Assumptions Used for the USDA Projections

Although some production of biofuels has been occurring for a number of years in some countries, the industry is currently experiencing explosive growth in many nations. Data on existing capacity, plants under construction, and planned additional production facilities are limited for most countries. The projections are based on a combination of historical data, USDA interpretation of foreign governments' statements about their plans for biofuel development, and other information about potential investments in biofuel production capacity. (See box, page 22, for a discussion of biofuels in the United States.)

During the next 3-4 years, the rapid expansion in biofuels production that is projected for a number of countries changes the price relationships among various agricultural commodities.

- Increased demand for grain (especially corn) used to produce ethanol increases the price of corn relative to prices for other grains. Prices for other grains also rise, buoyed by their feed value as a replacement for corn, as well as reduced production due to acreage shifts from crops competing with corn, such as soybeans.

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Global Demand for Biofuel Feedstocks *(Continued)*

- Prices for vegetable oils also rise in comparison to prices for oilseeds and protein meals as a greater share of the value of oilseeds is derived from the oil content relative to the protein meal content. Among oilseeds, rapeseed—containing more than 40 percent oil—becomes more profitable in some growing areas than soybeans, which have 18 percent oil.
- Thus, the price of protein feeds (such as soybean meal) declines relative to the price of feedstuffs used as a source of energy (such as corn).
- Prices of poultry, and especially pork, rise relative to the price of beef because cattle can more effectively use the increasing supply of distillers grains, produced as a coproduct when grain is used to make ethanol. Corn, needed for broilers and swine, becomes more expensive while distillers grains, used for cattle, become abundant and relatively less expensive.

Country Assumptions

EU-25: The EU has a target that 5.75 percent of total transportation fuel use should come from biofuels by 2010. EU policies provide for an area subsidy for biofuel crops, but the EU relies on individual member states to offer tax credits on biofuels. The EU Commission has promised to present a more forceful directive that will lead to greater production and use of biofuels in the future. The projections assume that about two-thirds of the mandate is met by 2010 and that, with increasing total fuel use, the mandate is still not quite reached by 2016. The projections further assume that biodiesel accounts for two-thirds of total biofuels and the other third is ethanol. Rapeseed oil is the feedstock for nearly all EU biodiesel production. In the EU, the area planted to rapeseed and the crushing capacity both increase sharply, in part because of EU enlargement. In addition, the EU increases rapeseed oil imports from Russia and Ukraine. It also imports more palm oil from Southeast Asia, as well as some biodiesel from palm oil processed in Southeast Asia.

Brazil: Sugarcane is the feedstock for most of Brazil's ethanol production. In southern Brazil, some land has already been shifted from grain and oilseeds production to sugarcane. The projections assume this trend continues, but at a slower pace. Biodiesel production is assumed to increase from about 52 million gallons currently to more than 92 million in 2016. Much of the new capacity will be in the soybean production areas in the Central-West region of the country which will reduce regular diesel fuel imports that have to be trucked to the interior.

Canada: Canada has mandated that 5 percent of all motor vehicle fuel be biofuel by 2010, but funds for initiatives to encourage biofuel production are limited. Some provinces have production goals and reportedly provide some production incentives. Ethanol production capacity is assumed to rise from 11 million gallons in 2006/07 to about 211 million gallons by 2010. Feedstocks include corn for ethanol plants in Ontario and wheat for a plant in Manitoba. Biodiesel plants are being built in western Canada that will use rapeseed oil as a feedstock. In the projections, land is shifted to rapeseed from wheat, barley, and some summer fallow. In eastern Canada, at least one

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Global Demand for Biofuel Feedstocks *(Continued)*

biodiesel plant is being expanded that uses soybean oil as a feedstock. Canadian biodiesel production is projected to rise from 13 million gallons in 2007/08 to 58 million in 2010.

Argentina: The production of biodiesel is assumed to rise from 7 million gallons in 2005/06 to about 59 million over the next several years. Argentina has a system of differential export taxes that has lower tax rates for biofuels exports than the tax rate on exports of feedstocks such as corn or soybean oil. In turn, the export tax on soybean oil is lower than the tax on soybean exports. For biodiesel, this provides an incentive for further investments in Argentina's already large crushing industry. Argentina is projected to import some soybeans from other South American countries to keep its crushing facilities running at near full capacity.

Other Europe and the former Soviet Union: Although no explicit assumptions were made about increases in biofuels production in the former Soviet Union or the other countries of non-EU Europe, the projections reflect an increase in rapeseed production generated by higher rapeseed prices. Much of the production gains are destined for export to the EU.

China: In 2005/06, approximately 3 million tons of corn were used to produce fuel ethanol. This is assumed to grow to 9 million tons by 2016. Because of its food security policy, China is assumed to eliminate a government subsidy for producing fuel ethanol from corn and will attempt to focus on ethanol production using nongrain feedstocks such as sweet potatoes and cassava.

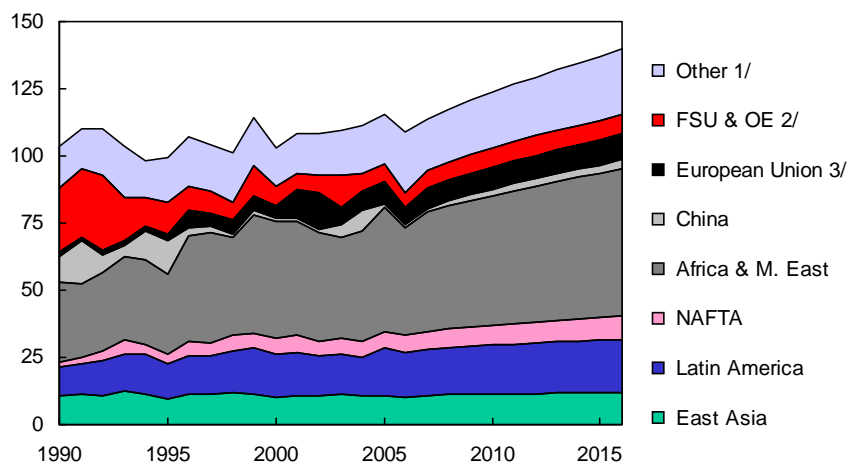
Malaysia and Indonesia: Although explicit assumptions were not made about increased production of palm oil or its use for biodiesel, higher world prices for palm oil stimulate expansion of the area planted to palm oil. Malaysia expects to not only export more palm oil, but also to produce biodiesel for the export market.

Africa: Although some countries are reported to be making initial investments in biofuels production capacity, the projections do not account for any uses of agricultural commodities beyond those embodied in rising trends in industrial use.

Other countries: Investments in biofuels production capacity are also being considered in a number of other countries. However, since definite plans are not yet known, these potential developments have not been included in the projections.

Global wheat imports

Million metric tons



1/ Predominantly South and Southeast Asia.

2/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

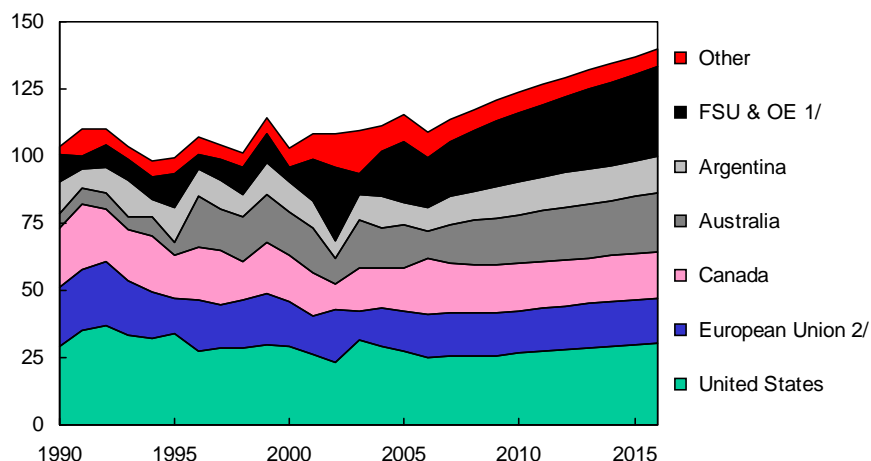
3/ EU-25 excludes intra-trade after 2002, EU-15 intra-trade before 2003, Slovenia before 1992.

Growth in wheat imports is concentrated in those developing countries where robust growth in income and population underpins increases in demand. Important growth markets include Sub-Saharan Africa, Brazil, Egypt, and Pakistan. World wheat trade (including flour) expands by nearly 27 million tons (23 percent) between 2007 and 2016 to 140 million tons.

- Egypt maintains its position as the world's largest importing country, as imports climb slowly to nearly 10 million tons. Imports by Brazil, another large importer, are projected to approach 9 million tons. Brazil's climate generally does not favor wheat, and in some key wheat-producing states, winter corn is expected to have better returns than wheat.
- Imports by developing countries in Sub-Saharan Africa, North Africa, and the Middle East rise 11 million tons and account for 40 percent of the total increase in world wheat trade. In most developing countries, little change in per capita wheat consumption is expected but imports expand modestly because of population growth and limited potential to expand production.
- Changing consumption patterns will boost wheat imports by some major importing countries. In Indonesia, strong economic growth and diversification of diets are projected to increase per capita wheat consumption. Mexican consumers are projected to continue substituting wheat for corn in their diets.
- Lower wheat-to-corn price ratios during most of the projection period enable wheat to compete effectively with corn for feed use in a number of countries. South Korea is projected to substitute 1 million tons of feed wheat for corn annually by 2016. Europe is expected to continue to account for the largest share of global wheat feeding.
- China has been a small net exporter of wheat in recent years, but production constraints cause it to become a net importer by 2009/10 and to import nearly 2 million tons annually by 2016.

Global wheat exports

Million metric tons



1/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

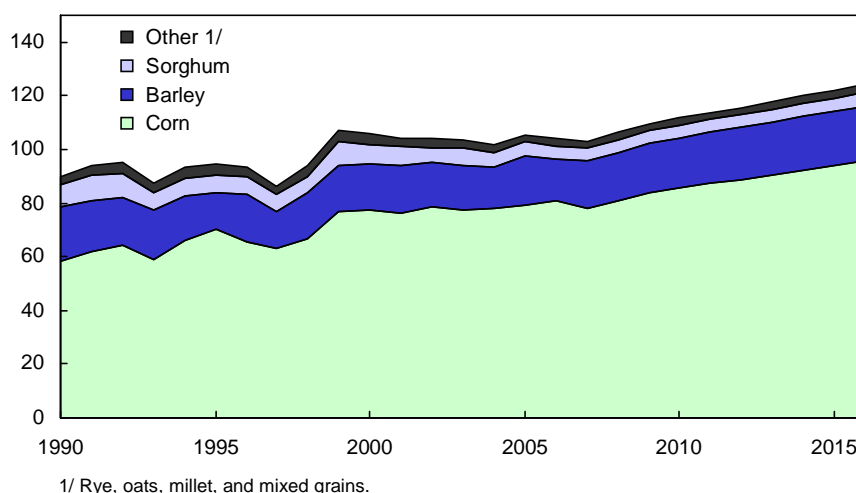
2/ EU-25 excludes intra-trade after 2002, EU-15 intra-trade before 2003, Slovenia before 1992.

The top five wheat-exporting nations (the United States, Australia, Canada, the EU-25, and Argentina) account for 73 percent of world trade in 2007-2016. This is down from a high of 87 percent in 2000/01, mostly due to increased exports from the Black Sea area. U.S. wheat exports are projected to account for 22 percent of global wheat trade, down from 25 percent in the past 5 years.

- Shares of the world wheat market held by Canada, the EU, and the United States decline slightly, offsetting increases by Australia, Ukraine, Russia, Argentina, and other Europe.
- In Canada, increased demand for vegetable oils, especially rapeseed oil for biodiesel production, and for barley is expected to reduce wheat area, which causes Canadian exports to trend slowly downward.
- The EU set-aside rate, currently 10 percent, is assumed to be lowered during the projections. However, most of any increase in planted area will go to rapeseed.
- Ukraine, Russia, and Kazakhstan have become significant wheat exporters in recent years. Low costs of production and new investment in their agricultural sectors have enabled their world market share to climb to as high as 18 percent in 2005/06. Exports from Ukraine and Russia are projected to continue gaining market share, more than offsetting a slight decline in the share held by Kazakhstan. However, because of the region's weather extremes, high year-to-year volatility in production and trade can be expected. Also, continued real appreciation of these countries' currencies, caused mainly by domestic inflation, could mitigate the rise in exports.
- China has been a small net exporter of wheat in recent years, but becomes a net importer of nearly 2 million tons annually by 2016. This is offset by other Europe, mostly Romania and Bulgaria, which shifts from a small net importer to a net exporter of more than 2 million tons. Most of these exports go to the EU-25.
- Exports by Turkey and other smaller exporters change little or trend slowly downward during the projection period. Although India has exported some wheat in recent years, exports are expected to be minimal as stocks remain relatively tight.

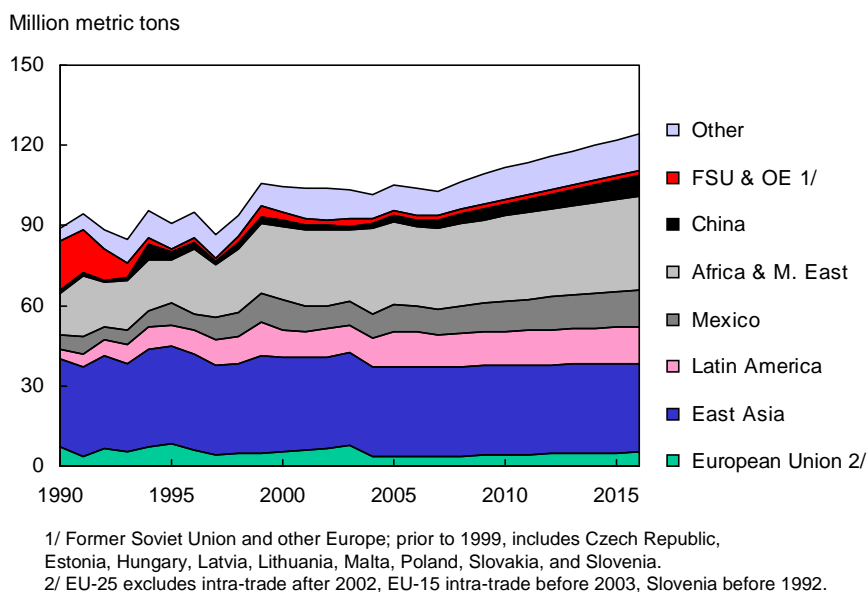
Global coarse grain trade, by type

Million metric tons



Growth in coarse grain trade is strongly linked to expansion of livestock production in regions unable to meet their own forage and feed needs. Key growth markets include China, Mexico, North Africa, the Middle East, and Southeast Asia. Japan and South Korea are large but mature import markets for coarse grains.

- Corn is the dominant feed grain traded in international markets. Corn accounts for an average of 77 percent of all coarse grain trade through the projection period, followed by barley (17 percent), and sorghum (4 percent).
- Commercialization of livestock feeding has been a driving force behind the growing dominance of corn in international feed grain markets. Hogs and ruminants, such as cattle and sheep, are capable of digesting a broad range of feedstuffs, making demand relatively price-sensitive across alternate feed sources. However, as pork and poultry production become increasingly commercialized, higher quality feeds are used, boosting the demand for corn and soybean meal.
- World coarse grain trade is projected to increase about 2 percent a year, with corn capturing some share of the total market from sorghum. Mexico's composition of imports accounts for most of the shift. Under the North American Free Trade Agreement (NAFTA), Mexico's over-quota tariff on U.S. and Canadian corn ends in 2008. Consequently, Mexico's grain imports shift more to corn rather than sorghum. Also, after 2007/08, Mexico's imports of kibbled and cracked corn (processed corn that is tariff free) are entirely replaced by whole-grain corn. Mexico's corn imports continue to rise through the rest of the projections, while sorghum imports resume growth after 2010/11.

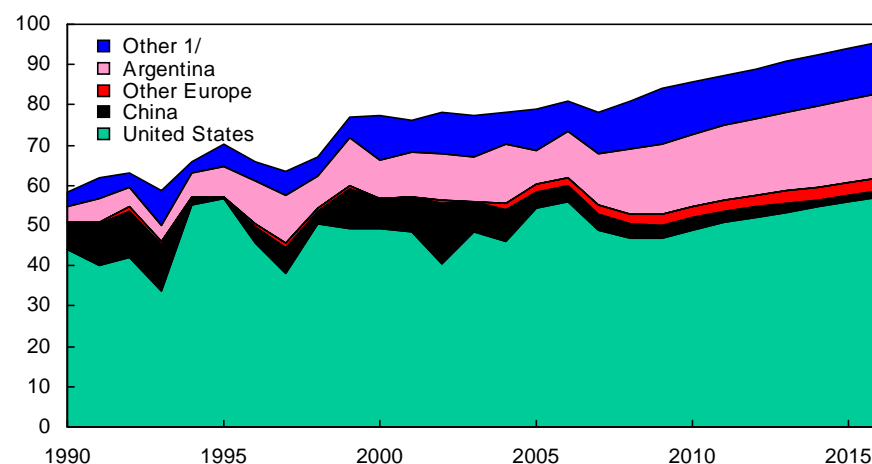
Global coarse grain imports

World coarse grain trade expands about 21 million tons (21 percent) from 2007 to 2016. About two-thirds of global coarse grain production is used as animal feed. Industrial uses, such as starch, ethanol, and malt production, are relatively small but growing. Food use of coarse grains, concentrated in parts of Latin America, Africa, and Asia, has generally declined over time.

- Steady longrun growth in the livestock sectors of developing countries in Asia, Latin America, North Africa, and the Middle East is projected to account for most of the growth in world imports during the next decade.
- Mexico's corn imports are projected to rise from 6.7 million tons in 2005/06 to 11 million tons in 2016. Imports will be stimulated by rising poultry production and the elimination of Mexico's over-quota tariff on U.S. and Canadian corn on January 1, 2008. Some corn imports will substitute for imports of kibbled corn and sorghum, which already have tariff-free status.
- Canadian corn imports double between 2006 and 2016 due to rising demand for corn for feed and for ethanol production and limited capacity to expand production.
- North Africa and the Middle East experience continued growth in import demand for grain and protein meals through 2016, as rising populations and increasing incomes sustain strong demand growth for domestically produced animal products. In Egypt, outbreaks of avian influenza have shifted government policy towards importing poultry meat rather than importing feedstuffs to produce poultry.
- Increasing meat imports will limit coarse grain imports in Japan, South Korea, and Taiwan. By 2016, relatively low-priced feed wheat is projected to replace about 1 million tons of South Korean corn imports.
- The EU-25's corn imports from Eastern European countries are expected to increase, particularly from Romania and Bulgaria as they have gained duty-free access due to accession to the EU.
- Coarse grain imports by countries in Southeast Asia rise more than a million tons in the projections as increased demand for livestock products surpasses their capacity to grow more feed grains.

Global corn exports

Million metric tons



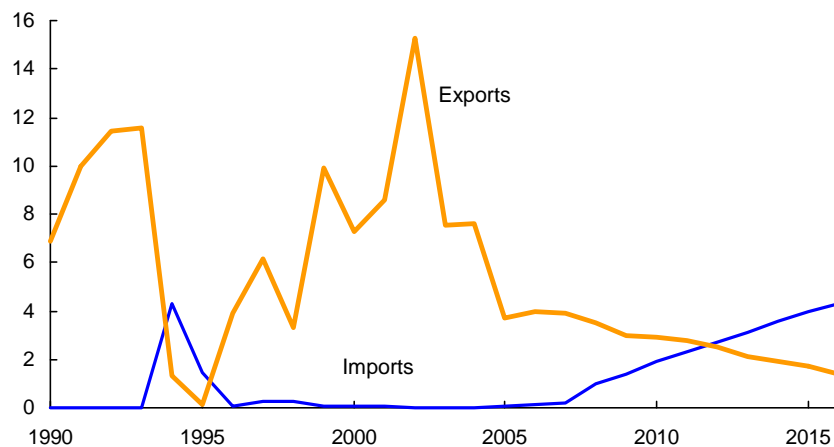
1/ Republic of South Africa, Brazil, EU, former Soviet Union, and others.

The United States dominates world trade in coarse grains, particularly corn. However, increasing use of corn for U.S. ethanol production and rising world prices are assumed to limit U.S. export growth. During the next half decade, some countries respond to higher world prices by increasing corn production and exports—most notably Argentina, some countries in Eastern Europe, the Republic of South Africa, Ukraine, and Brazil. Still, U.S. corn exports are projected to grow after the ramp up in domestic ethanol production slows in 2009. The U.S. share of world corn trade stays close to 60 percent as few countries have the capability to respond to rising international demand for corn.

- Argentina, with a small domestic market, remains the world's second largest corn exporter. Argentina's corn planted area gradually increases in response to higher prices. Corn exports rise steadily by more than 60 percent to 21 million tons. Argentina and other South American countries increase corn exports to Chile to support its expanding pork exports to South Korea.
- The Republic of South Africa boosts corn exports slightly to nearly 3 million tons. Some exports go to East Asian markets and some shipments of white corn are exported to neighboring countries for food use. Uncertainties associated with the land reform program in the Republic of South Africa are assumed to limit increases in production.
- Corn exports from non-EU-25 Eastern European countries, primarily Romania and Bulgaria, rise to more than 3 million tons by 2016. Favorable resource endowments, increasing economic openness, greater investment in their agricultural sectors, and duty-free access to the EU-25 for Romania and Bulgaria are behind the projected gains in production and trade.
- Brazil's corn exports increase rapidly in the early years of the projections in response to higher corn prices relative to soybean prices. Brazil targets niche market demand for nongenetically modified grain. However, strong growth in domestic demand from its livestock sector and the profitability of growing soybeans limits corn exports.
- China's corn exports decline in the projections, reflecting strengthening domestic demand driven by its expanding livestock and industrial sectors. It is assumed that Chinese policy will tend to favor importing soybeans rather than corn.

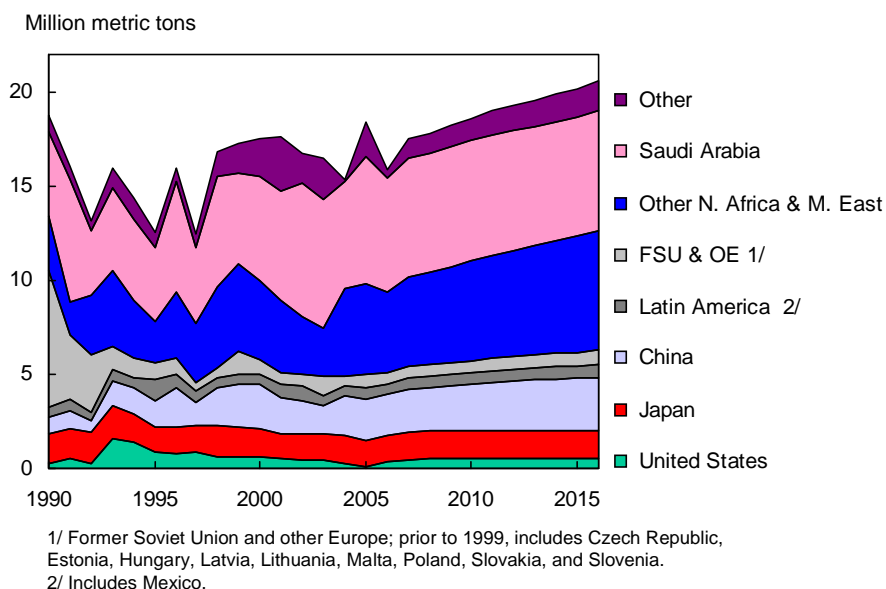
China: Corn imports and exports

Million metric tons



As more U.S. corn is used to produce ethanol, China is assumed to increase its corn production, slowing its decline in exports and its increase in imports. Nonetheless, China is projected to become a net corn importer midway through the projection period as demand for livestock feed overtakes China's internal supplies of corn. China continues to export corn throughout the projection period, although in declining amounts, due to regional supply and demand differences. Northern China runs a corn surplus, while southern China has a corn deficit.

- Corn is the favored crop in northeast China. Proximity to South Korea and other Asian markets provides a nearby source of demand, while various government measures—including waivers of certain transportation construction taxes, and a rebate of the value-added tax on exported corn—keep corn exports competitively priced in international markets. High ocean-freight rates raise the delivered cost of U.S. corn to Asian markets, another factor that keeps Chinese corn competitive. Shipments of corn from northeast China to the country's southern markets are limited by China's high internal transportation costs.
- China's corn consumption exceeded production during the early 2000s, pushing stocks lower. As consumption continues to grow, China is projected to increase imports and reduce exports, and to eventually become a net corn importer by 2012. Livestock feeding continues to increase in response to income growth and rising meat demand. Industrial use of corn, especially for starch, is also expected to grow robustly in China, but direct human consumption declines.

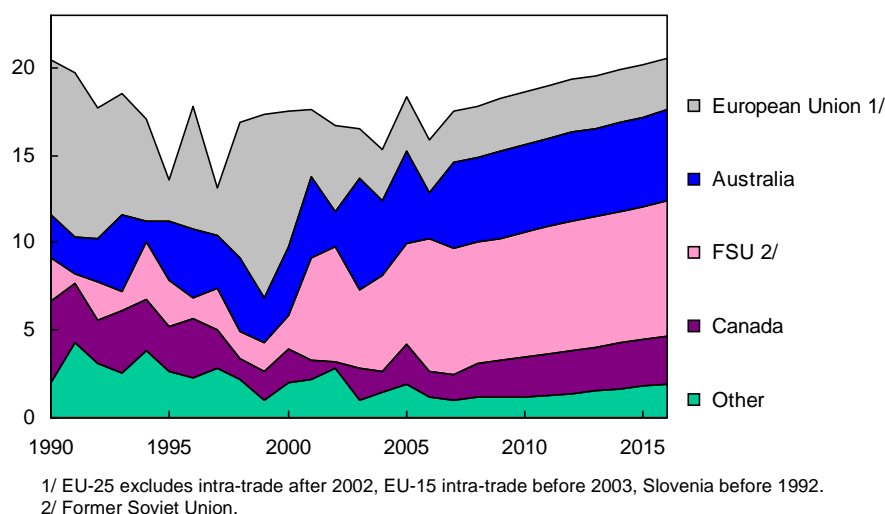
Global barley imports

Global barley trade expands more than 3 million tons (18 percent) during the projection period. Rising demand for both malting and feed barley underpin the increased trade.

- Feed barley imports by North African and Middle Eastern countries grow steadily through the period. In the mid-1990s, corn overtook barley as the principal coarse grain imported by these countries, due mainly to rising poultry production. This pattern is expected to continue through the projection period. However, the North Africa and Middle East region is expected to remain the world's largest barley importing area.
- Saudi Arabia—the world's foremost barley importer—accounts for over 30 percent of world barley trade through the coming decade. Saudi Arabia's barley imports are used primarily as feed for camels, goats, sheep, and poultry.
- International demand for malting barley is boosted by strong growth in beer demand in many developing countries, notably China—the world's largest malting barley importer. China's beer demand is rising steadily due to growth in incomes and population. Expansion in China's brewing capacity is being aided by foreign investment. China's breweries use rice and other grains, as well as malting barley, which limits the growth in imports of malting barley. Australia and Canada are China's main sources of malting barley imports.

Global barley exports

Million metric tons

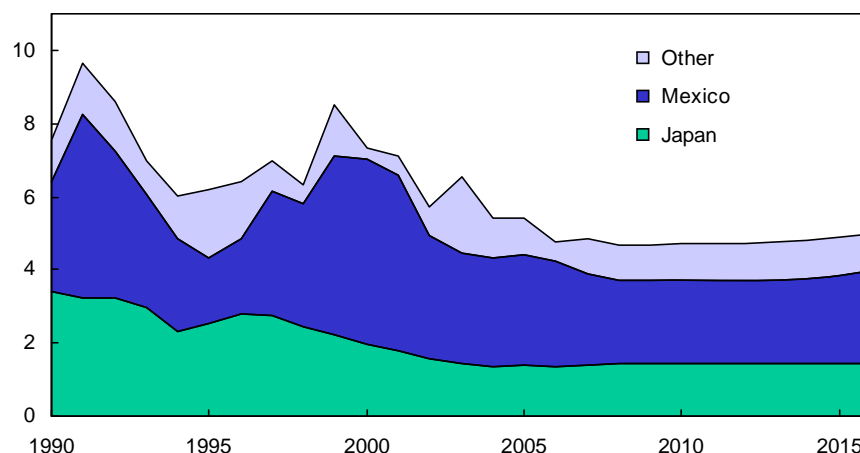


Historically, global barley exports have originated primarily from the EU, Australia, and Canada. However, Ukraine and, to a lesser extent, Russia have emerged as important competitors in international feed barley markets and remain so throughout the projection period.

- Barley production is expected to increase in the EU-25 as a result of Common Agricultural Policy (CAP) reform. The abolition of EU intervention for rye, combined with high barley prices, will stimulate the allocation of more area to barley production. However, EU-25 exports to non-EU countries are projected to hover around 3 million tons over the projection period (15 percent of world trade), as the EU-25 is expected to be reluctant to subsidize exports.
- The FSU remains a major barley exporter throughout the coming decade as exports surpass 7 million tons. Together, the FSU and EU-25 account for more than 50 percent of world barley trade.
- Malting barley is a different quality than feed barley and commands a substantial price premium over feed barley. This premium is expected to influence planting decisions in Canada and Australia and, in both countries, malting barley's share of total barley area rises during the projection period.

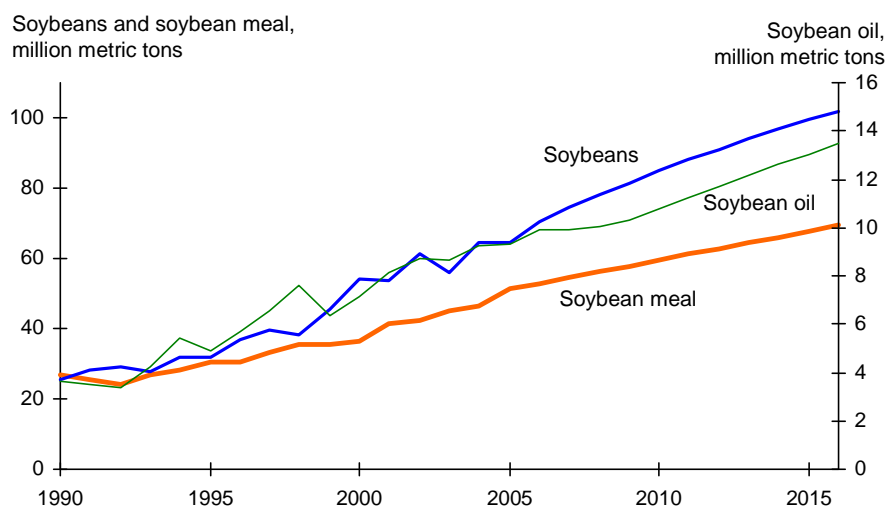
Global sorghum imports

Million metric tons



World sorghum trade, which averaged nearly 6.5 million tons during the last decade, declines to just below 5 million tons in the middle of the projection period before rising slightly through the remainder of the coming decade. This trade is driven almost entirely by trade between the United States and Mexico.

- Mexico is the world's leading sorghum importer. However, corn imports are expected to replace sorghum and kibbled corn imports as Mexico's over-quota tariff on U.S. and Canadian corn ends in 2008. In the projections, Mexico's sorghum imports increase slightly in the later years, but remain just below 2.5 million tons. Even at this reduced import level, Mexico is expected to account for about 50 percent of world sorghum imports.
- Japan imports a fairly constant volume of sorghum (1.4 million tons) throughout the period to maintain diversity and stability in its feed grain supplies.
- The United States is the largest exporter of sorghum, accounting for more than 80 percent of world trade in recent years. During the projection period, the U.S. share declines slightly as some of its sorghum exports to Mexico shift to corn.
- The primary sorghum markets for Argentina, the world's second largest exporter, are Japan, Chile, and Europe. In Argentina, prices and profitability favor planting other crops, particularly soybeans and corn, so sorghum exports remain flat during the projection period.
- Brazil has begun to export small quantities of sorghum and the volume is projected to rise during the projection period. In the Central-West region of Brazil, sorghum is increasingly planted during the dry season between crops of soybeans or cotton.

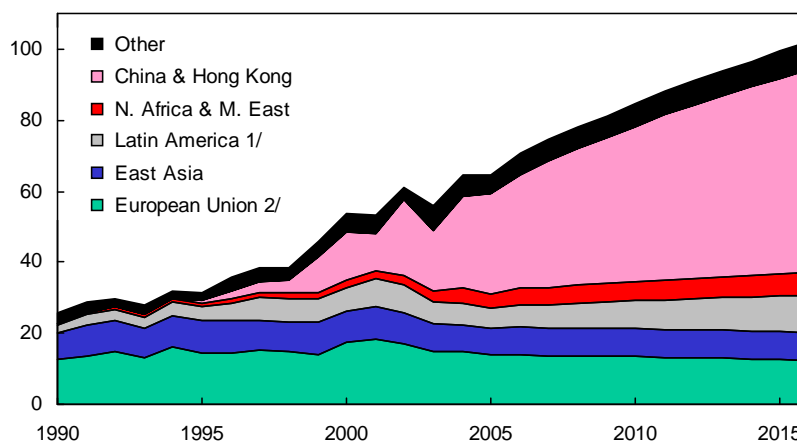
Global exports: Soybeans, soybean meal, and soybean oil

Strong income and population growth in developing countries generates increasing demand for vegetable oils for food consumption and for protein meals used in livestock production. Additional demand is generated by the use of soybean oil in biodiesel production in some countries. World trade in soybeans and soybean oil both grow at an average annual rate of 3.5 percent through the projection period, compared with 2.7 percent for soybean meal.

- Prices for vegetable oils rise due to expansion of biodiesel production. As more of the value of oilseeds derives from the oil content relative to the protein meal content, vegetable oil prices rise in comparison to prices for oilseeds and protein meals.
- Many countries with limited opportunity to expand oilseed production continue investment in oilseed crushing capacity, such as China and some countries in North Africa, the Middle East, and South Asia. As a result, import demand for soybeans and rapeseed grows rapidly. However, strong competition in international protein meal markets is expected to pressure crushing margins and shift some of the import demand for oilseeds to cheaper meals. The steady competitive pressure of new oilseed crushing capacity is expected to result in some inefficient crushers going out of business.
- China's expansion of domestic crushing capacity instead of importing protein meal and vegetable oil significantly influences the composition of world trade by raising international import demand for soybeans and other oilseeds rather than for oilseed products.
- Brazil's rapidly increasing soybean area enables it to gain a larger share of world soybean and soybean meal exports, despite increasing domestic feed use. Its share of world exports of soybeans plus the soybean equivalent of soybean meal exports rises from about 30-35 percent in recent years to 46 percent by 2016.
- The expansion in Argentine soybean area slows as incentives to grow corn and sunflower seed improve and conversion of pasture land to crop land slows.

Global soybean imports

Million metric tons



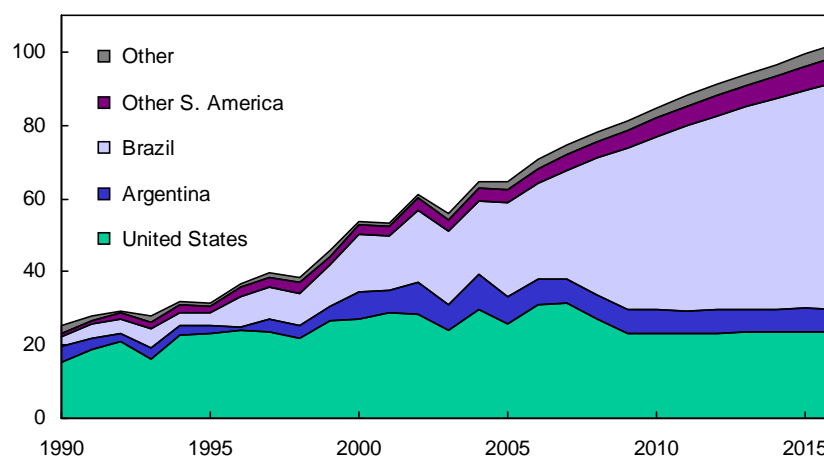
1/ Includes Mexico. 2/ EU-25 excludes intra-trade after 2002, EU-15 intra-trade before 2003, Slovenia before 1992.

World soybean trade is projected to rise rapidly, climbing more than 27 million metric tons (36 percent) during the next decade.

- The EU was the world's leading importer of soybeans until 2002. However, increases in grain and rapeseed meal feeding and rising imports of soybean meal have resulted in declining soybean imports since then.
- China will face policy decisions regarding tradeoffs in producing or importing corn and soybeans. The projections assume that Chinese policies will tend toward maintaining domestic corn production and importing soybeans. Thus, China accounts for 78 percent of the world's 27-million-ton growth in soybean imports over the next 10 years. Significant investments in oilseed crushing infrastructure by China drive strong gains in soybean imports as China seeks to capture the value added from processing oilseeds into protein meal and vegetable oil. The use of vegetable oils for biofuels production is assumed to have only a minimal impact on China's total vegetable oil use.
- East Asia's trade outlook is dominated by a continuing shift from importing feedstuffs to importing meat and other livestock products. As a result, the growth in this region's import demand for protein meal and oilseeds slows during the coming decade
- As Argentina seeks to operate its expanding crushing facilities at full capacity, it is projected to import nearly 3 million tons of soybeans from Brazil, Paraguay, Uruguay, and Bolivia by the end of the period.

Global soybean exports

Million metric tons

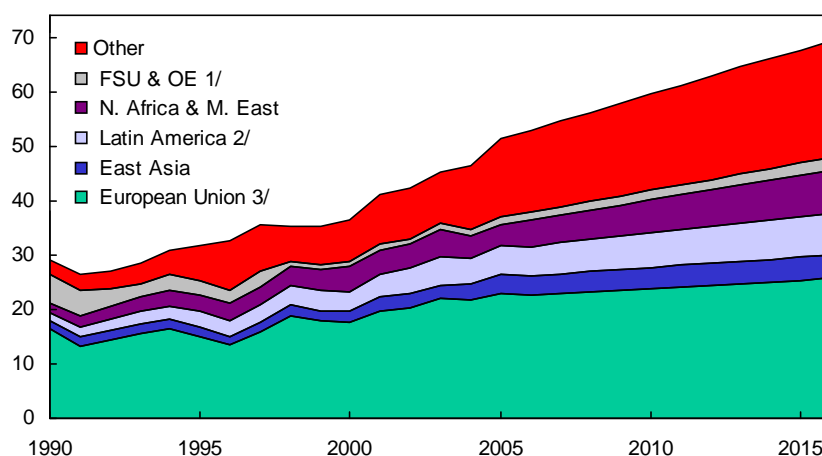


The three leading soybean exporters—the United States, Brazil, and Argentina—account for more than 90 percent of world trade.

- With continuing area gains, Brazil maintains its position as the world's leading exporter of soybeans and soybean products. Combating soybean rust disease increases production costs. However, because of the increased domestic demand for soybean meal for feed and for soybean oil for human consumption and biodiesel production, soybeans remain more profitable than other crops in most areas of Brazil. It is assumed that some land in southern Brazil will shift from oilseed to corn production during the middle of the projection period in response to higher corn prices and more limited competition from U.S. corn exports. Still, with expanded soybean plantings in the Cerrado regions, the growth rate for Brazil's soybean planted area is projected to average more than 4 percent a year, reaching about 32 million hectares by 2016. Soybean exports are projected to double.
- In the United States, projected declines in soybean acreage and increased domestic crush limit exportable supplies.
- Argentina's export tax structure favors domestic crushing of whole seeds and exporting the products. Also, Argentina is projected to divert some land from soybeans to corn. As a result, Argentina's soybean exports decline slightly to about 6 million tons.
- Soybean exports from Russia and the Ukraine increase slightly in response to higher international market prices.

Global soybean meal imports

Million metric tons



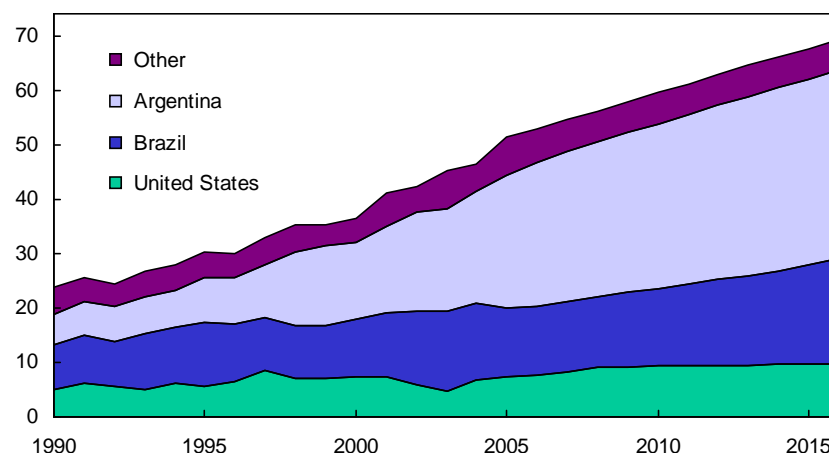
1/ Former Soviet Union and other Europe; prior to 1999, includes Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia. 2/ Includes Mexico. 3/ EU-25 excludes intra-trade after 2002, EU-15 intra-trade before 2003, Slovenia before 1992.

World trade in soybean meal grows briskly during the projections, rising nearly 15 million tons (more than 25 percent) by 2016. Continuing growth in the demand for livestock products coupled with limited capability to increase oilseed production boosts demand for soybean meal by a number of countries with rising middle-income populations. Lower import prices of soybean meal relative to soybeans and grains provide incentives for countries to import soybean meal for inclusion at a higher rate in livestock feeds.

- The EU remains the world's largest destination for soybean meal throughout the projection period, despite increased domestic feeding of grains. Growth in soybean meal imports is expected to continue even though there will be increased competition from coarse grains from acceding countries, and more rapeseed meal available as a result of the biofuels expansion. These factors are partially offset by an increase in the dairy quota which increases soybean meal feeding.
- The regions of Southeast Asia, North Africa, the Middle East, and Latin America all become larger importers of soybean meal as the demand for livestock feed boosts import demand in a number of countries.
- Mexico's strong growth in demand for protein feed and vegetable oils is projected to continue. The crushing industry is also expected to continue expansion. This will boost soybean imports, but soybean meal imports from the United States are also expected to grow rapidly.

Global soybean meal exports

Million metric tons

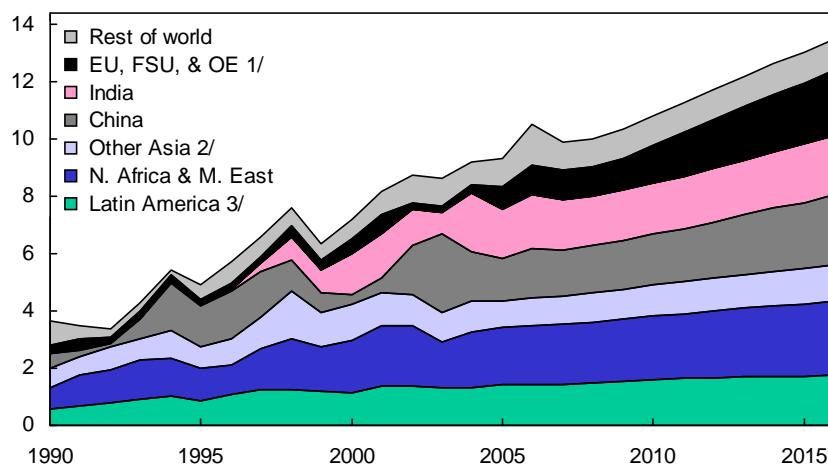


Argentina, Brazil, and the United States remain the three major exporters in international protein meal markets. Together they account for around 90 percent of total world soybean meal trade during the next 10 years.

- Argentina, the world's largest exporter, increases its share of soybean meal exports from around 45 percent in recent years to more than 50 percent in the latter portion of the projection period. The export shares of Brazil, the United States, and other exporters fall. Argentina maintains high utilization of its growing crushing capacity by importing soybeans from Brazil and other South American countries.
- In Brazil, strong growth in domestic meal consumption due to rapid expansion of the poultry and pork sectors limits increases in soybean meal exports. Also, domestic soybean crushing capacity is not expected to grow as fast as soybean production because Brazil's differential export tax structure favors exporting soybeans rather than soybean meal or soybean oil.
- U.S. soybean meal exports could see growth for the first 2 years of the projection period, but slow thereafter as soybean stocks are reduced and limited production growth tightens the supply available for crushing.
- The EU continues to be a small but steady exporter of soybean meal to Russia and other East European countries. India remains an exporter, although export volume declines as domestic use, especially for poultry feed, rapidly expands.

Global soybean oil imports

Million metric tons



1/ European Union, former Soviet Union, and other Europe.

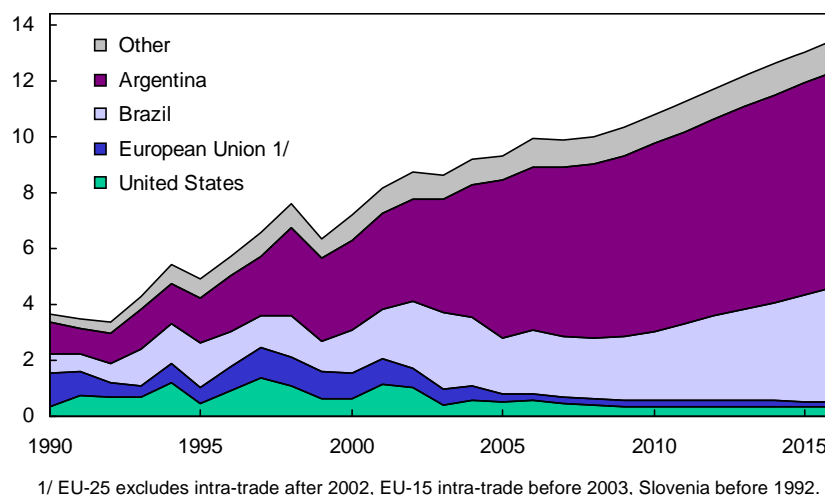
2/ Asia excluding India and China. 3/ Includes Mexico.

World demand for soybean oil imports climbs 3.6 million metric tons (36 percent) in the projections, bolstered by increased food use and increased demand for use in biofuel production. China and India are the world's two largest soybean oil importers. In recent years, their combined imports have been around 3.5 million tons, nearly 40 percent of the world total.

- Import demand for soybean oil rises in nearly all countries and regions. Income and population growth in North Africa, the Middle East, and Latin America (particularly Central America and the Caribbean) drive rapid gains in soybean oil imports. Rising international prices for soybean oil will temper consumption, however, especially in developing countries.
- India is one of the world's largest soybean oil importers. Factors that contribute to continued growth in imports include burgeoning domestic demand for vegetable oils and limitations on domestic production of oilseeds. Low yields, associated with erratic rainfed growing conditions and low input use, inhibit growth of oilseed production in India. Lower Indian tariffs on soybean oil (held down by World Trade Organization (WTO) tariff-binding commitments) compared with tariffs for other vegetable oils support continued large imports of soybean oil.
- China experiences a growing demand for vegetable oils. However, land-use competition from other crops constrains area planted to oilseed crops. As a result, demand outpaces domestic vegetable oil production and fuels a moderate expansion in soybean oil imports, although China seeks to restrain them to support margins for domestic crushers.

Global soybean oil exports

Million metric tons

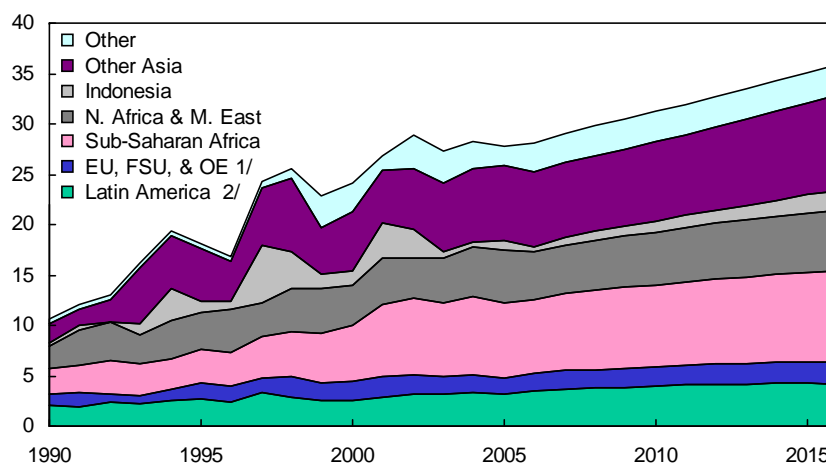


Argentina's and Brazil's combined share of world soybean oil exports rises from less than 80 percent in recent years to about 85 percent by the end of the projections.

- Argentina is the leading exporter of soybean oil, reflecting the country's large crush capacity, its small domestic market for soybean oil, and an export tax structure that favors exports of soybean products rather than soybeans. Increases in soybean crush and soybean oil exports are supported by gains in Argentine soybean production due to extensive double-cropping, further adjustments to crop-pasture rotations, and the addition of marginal lands in the northwest part of the country. Argentina also increases soybean imports from other South American countries in order to more fully utilize its crushing capacity. Growth in Argentina's biodiesel production capacity, with incentives from a lower export tax for biodiesel than for soybean oil, may constrain growth in soybean oil exports in the future.
- Brazil's expansion of soybean production into new areas of cultivation enables it to increase both its volume of soybean oil exports and its share of world trade.
- The European Union and the United States remain the world's next largest soybean oil exporters, although their export volumes and shares of world trade continue a downward trend. In the EU, exportable supplies of vegetable oils are limited by the growth in biodiesel production.

Global rice imports

Million metric tons



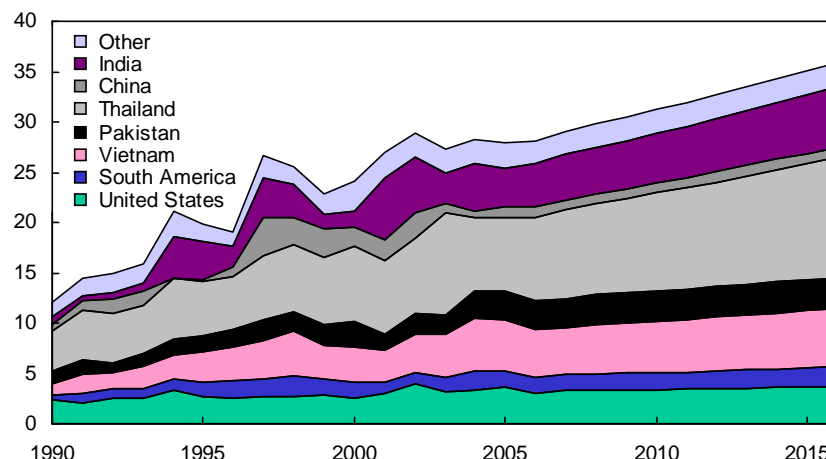
1/ European Union, former Soviet Union, and other Europe. 2/ Includes Mexico.

Global rice trade is projected to grow 2.4 percent per year from 2007 to 2016. By 2016, global rice trade reaches nearly 35 million tons, nearly 25 percent above the record set in 2002.

- In recent years, long-grain varieties have accounted for around three-fourths of global rice trade and are expected to account for the bulk of trade growth over the next decade. Long-grain rice is imported by a broad spectrum of countries in South and Southeast Asia, much of the Middle East, nearly all of Sub-Saharan Africa, and most of Latin America. Much of the increase in rice consumption in these regions reflects population growth.
- Medium- and short-grain rice account for 10-12 percent of global trade, with Japan, South Korea, Taiwan, Turkey, Jordan, and Papua New Guinea the major importers. Expansion in medium-grain rice trade is projected to be much smaller than for long grain. Among the Northeast Asian buyers, only South Korea is projected to increase purchases over the next decade. All rice imports by Japan, South Korea, and Taiwan are the result of minimum import commitments under the WTO.
- Aromatic rice, primarily basmati and jasmine, makes up most of the rest of global rice trade. Aromatics typically sell at a substantial price premium over long- and medium-grain varieties. Aromatics are imported mostly for high-income consumers.
- Indonesia and Bangladesh, two of the world's leading rice-importing countries, will experience rising food demand due to growing populations. However, land constraints and already high cropping intensities indicate little opportunity for either country to significantly expand production. Thus, their imports are projected to increase over the next decade and account for 28 percent of the increase in rice trade.
- In Sub-Saharan Africa and the Middle East, strong demand growth is driven by rapidly expanding populations. But opportunities to expand production are limited by climatic conditions in the Middle East, and by infrastructure deficiencies in Sub-Saharan Africa. Sub-Saharan Africa accounts for 20 percent of the increase in world rice trade during the projection period.

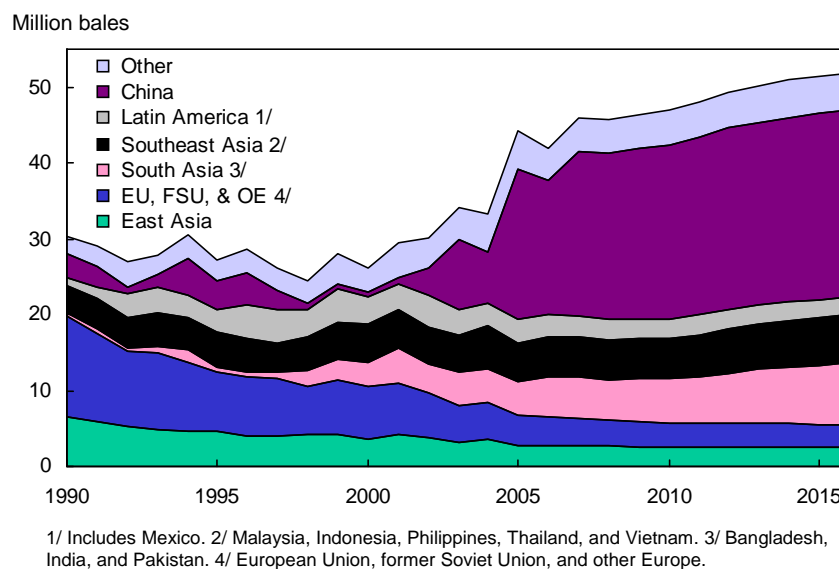
Global rice exports

Million metric tons



Asia remains the largest rice-exporting region throughout the projection period.

- Thailand and Vietnam, the world's largest rice-exporting countries, account for almost half of all rice exports in the coming decade. Vietnam exports primarily long-grain rice. Thailand exports aromatic, regular long-grain, and glutinous varieties of rice. Rising production, a result of higher yields, and declining per capita consumption, particularly in Thailand, drive the expansion in exports from both countries.
- India is the third-largest rice exporter. India has been a major exporter since the mid-1990s, although export levels have been rather volatile, primarily due to fluctuating production and stock levels. Exports are projected to increase over the next decade as high internal prices stimulate production and exportable supplies. India exports both low-quality long-grain rice and smaller quantities of high-quality basmati rice.
- The United States is projected to remain the fourth-largest rice-exporting country. Rising domestic demand, fractional area expansion, and a slower growth rate in yields constrain the expansion of U.S. rice exports. The United States exports both long-grain and medium/short-grain rice.
- Pakistan is the world's fifth-leading exporter. Pakistan has boosted rice area and production in the past few years. However, Pakistan has little ability to expand rice area beyond its current record level, and its agricultural sector is confronting a growing water shortage and a decaying infrastructure. Rice exports increase very slightly, to about 3.1 million tons by 2016. Pakistan exports both high-quality basmati and low-quality long-grain rice.
- Rice exports from China have declined from about 2 million tons in most years during the half-decade ending in 2003, to about 1 million tons annually since then. Little, if any, growth in China's rice exports is projected. Production is projected to decline very slightly during the next decade, as declining area more than offsets rising yields. Consumption decreases fractionally over the next decade as declining per capita rice consumption more than offsets a rising population. China exports high-quality, medium/short-grain rice to Northeast Asian markets and low-quality, long-grain rice to Sub-Saharan Africa and some lower-income Asian markets.

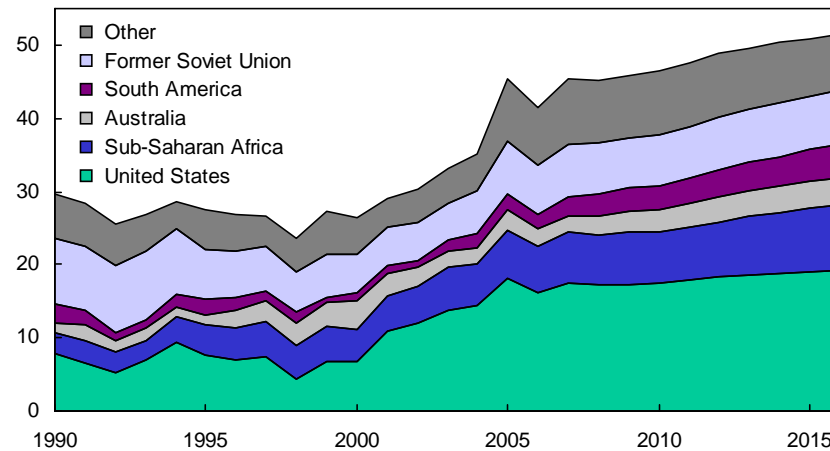
Global cotton imports

With global cotton consumption growing dramatically, international trade has become increasingly important in world cotton markets. Not only has textile trade liberalization helped boost world cotton demand through increased efficiency, but geographic shifts in the mill use of cotton have increased the role of trade in meeting the global textile industry's need for cotton. Trade's importance has rebounded in recent years as China's and, to a lesser extent, Pakistan's textile sectors have grown substantially faster than their cotton production.

- The textile industries in China, India, and Pakistan are the major beneficiaries of textile trade liberalization through the elimination of Multifiber Arrangement (MFA) quotas.
- China has been importing record amounts of cotton as its textile industry's growth rapidly accelerated with a booming economy and WTO accession. Both its textile industry and its cotton imports are expected to grow more slowly than the rapid increase since 2001. However, during the next decade, the increase in cotton imports by China is projected to more than offset the decline in imports by other countries, and China accounts for 47 percent of world imports by 2016.
- Pakistan has emerged as a major importer in recent years, and is expected to remain in this role throughout the projection period, eventually overtaking Turkey as the second-largest global market.
- In recent years, Turkey's textile industry has benefited from favorable trade access to the EU, its major market for textile and apparel exports. However, the end of the MFA quotas gives lower cost competitors more favorable access to EU markets. Consequently, Turkey's cotton imports are projected to decline slowly over the next 10 years.
- The EU, Japan, Taiwan, and South Korea all steadily reduce their cotton imports as textile trade reforms and/or higher wages in these countries drive textile production to countries with lower wages and other costs.

Global cotton exports

Million bales

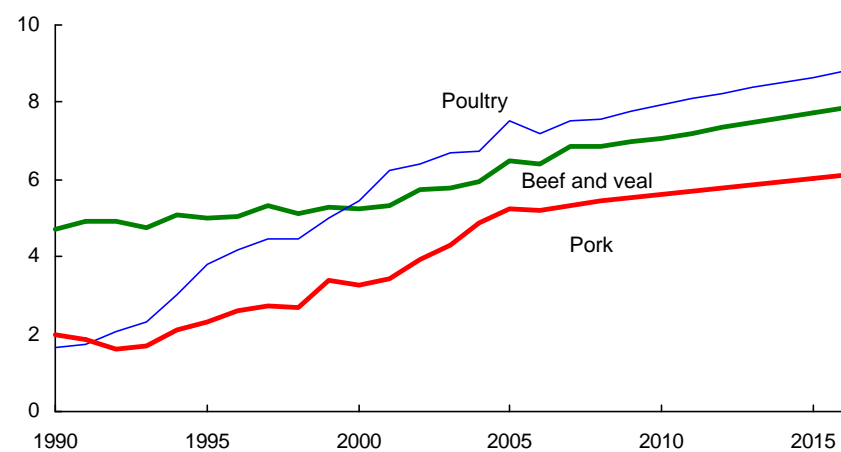


Globalization is expected to continue to move raw cotton production to countries with favorable resource endowments and technology. Land is a key input factor, but the importance of technology has been highlighted by the impact of India's rapid adoption of genetically modified cotton, nearly all *Bacillus thuringiensis* (Bt) cotton. Traditional producers with large land bases suitable for cotton production are expected to benefit from post-MFA trade patterns. Such producer/exporter regions include the United States, Sub-Saharan Africa, and Brazil.

- The United States continues as the world's leading cotton exporter throughout the projections. Exports dip to 17.2 million bales in 2008/09, but grow to more than 19 million bales by 2016/17.
- The Central Asian countries of the former Soviet Union have been the principal U.S. competitors since the early 1990s. However, government policies in Central Asia promoting investment in textiles have resulted, to some extent, in exports of textile products rather than exports of raw cotton. Furthermore, the region's economic liberalization is far from complete, and cotton production is expected to grow only slowly.
- Sub-Saharan Africa's exports have overtaken Central Asia's exports in large part due to economic reforms. West Africa's 1994 exchange rate devaluation led to nearly a decade of growth within the region's monetary union. As West Africa's production gains began to lag at the end of the 1990s, several southern African countries began increasing their cotton production, aided by reforms such as eliminating marketing board monopolies. Continued increases in output are expected as producers take advantage of more export-oriented government policies, and Bt cotton is eventually adopted by the region's producers.
- Improved Indian cotton crop yields, in part due to the adoption of Bt cotton, have raised India's output in recent years. Rapid yield growth is projected to continue with the increase in cotton output being used for domestic textile production rather than for export.

Meat exports 1/

Million metric tons



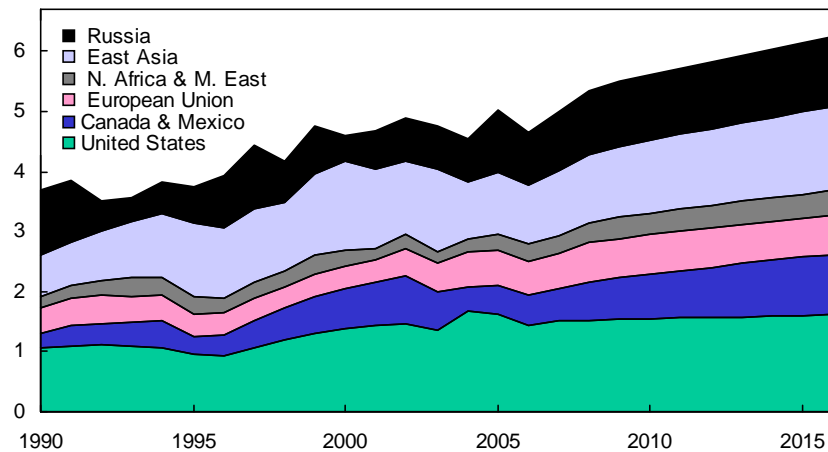
1/ Major exporters.

The growth rates of exports from major exporters of beef, pork, and poultry meat average 1.3, 1.5, and 1.9 percent a year, respectively, between 2007 and 2016. During this period, exports rise nearly 1 million tons for beef, 0.7 million for pork, and 1.3 million for poultry. Rising per capita incomes, combined with population growth in a number of countries, are the driving force behind the projected growth in global meat demand.

- BSE in Canada and the United States has resulted in changes in Canada's beef and live cattle exports to the United States. In 2004-05, Canadian beef exports recovered from much of the decline that followed its 2003 BSE case, but then fell again in 2006. During the coming decade, Canadian beef exports are expected to recover once again, rising to a level just below their 2002 record. Canadian exports to the United States of live cattle under 30 months of age are assumed to continue.
- EU enlargement from EU-15 to EU-25 results in greater shipments between the EU member countries and restrained trade of meat outside the EU-25. EU beef exports remain well below the annual WTO export-subsidy limit of 817,000 tons, as a stronger euro limits their competitiveness and policy changes lower both beef production and the need to remove beef from the domestic market.
- Argentine beef exports rose sharply in 2004 and 2005. However, export taxes and other recent policy changes have made Argentina's exports less competitive. Beef exports are projected to decline, but remain above their pre-2004 levels.
- The projections assume that Brazil does not gain nationwide FMD-free status. However, exports from Brazil's expanding pork sector are expected to be competitive in price-sensitive markets, and countries less concerned about FMD, such as Russia.
- During the coming decade, Brazil is expected to remain the largest exporter of poultry products, due to low production costs and competitive export prices.
- Poultry exports from the United States are expected to continue to increase.
- Exports of poultry from Thailand and China will be limited to fully cooked products for most of the projection period because avian influenza has occurred in those countries.

Beef imports 1/

Million metric tons



1/ Selected importers.

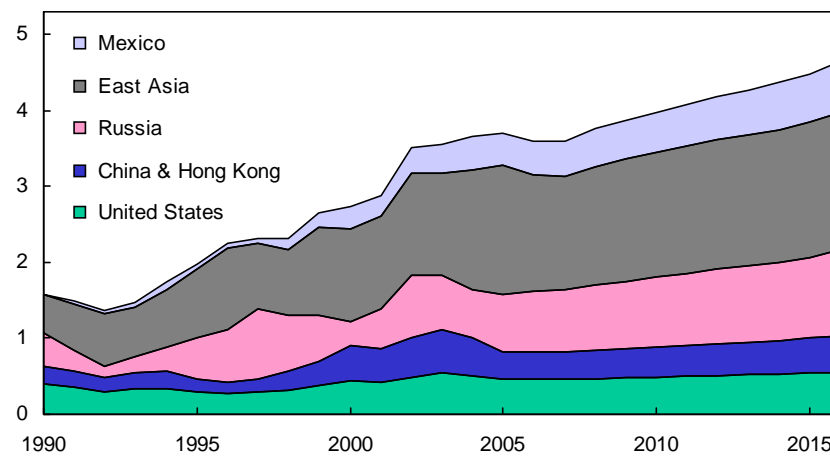
2/ EU-25 excludes intra-trade after 2002, EU-15 intra-trade before 2003, Slovenia before 1992.

Beef imports by major importers expand about 1.4 million tons (27 percent) between 2007 and 2016. Traditionally, beef trade occurred largely between developed countries. However, Brazil has become a large exporter of lower quality beef that is imported by lower income countries and countries with less stringent import restrictions concerning FMD. The projections assume gradual recovery of U.S. and Canadian exports to Japan and South Korea.

- Higher income countries, such as Japan and South Korea, increase beef imports, reflecting domestic cattle sectors that are constrained by land availability. These imports are primarily of grain-fed beef. U.S. beef exports to these countries are projected to rebuild over the next 10 years, but do not completely recover to levels attained prior to the first U.S. BSE case in December 2003. Also, there continues to be an increased presence of Australia and New Zealand in these East Asian markets.
- U.S. beef imports, primarily of grass-fed lean beef from Australia and New Zealand for use in ground beef and processed products, rise slightly through the period. Continued strong Asian imports of beef from Australia and New Zealand enable these exporters to maintain significant levels of exports.
- Robust import growth of U.S. higher quality beef is projected for Mexico.
- The projections assume that Russia's tariff-rate quota (TRQ) for beef, first imposed in 2003, remains in effect until 2009. In the longer run, the growth in Russia's beef imports resumes as rising consumer demand outpaces gains in domestic production. Russia remains a large market for EU and Brazilian beef exports.

Pork imports 1/

Million metric tons



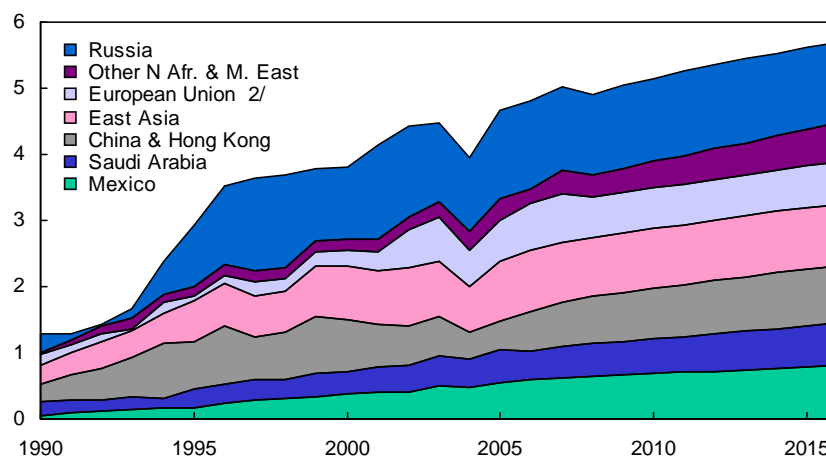
1/ Selected importers.

The major pork importers are projected to increase trade by nearly 1 million tons (26 percent) between 2007 and 2016.

- Mexican pork imports increase nearly 200,000 tons between 2007 and 2016, making Mexico one of the fastest growing pork importers. Increases in income and population are the primary drivers of Mexico's increasing demand for pork products.
- Higher income countries of East Asia, such as Japan, Hong Kong, and South Korea, increase pork imports as their domestic hog sectors are constrained by environmental concerns and high imported feed costs. In South Korea and Japan, animal health related concerns regarding beef and poultry also boost pork demand.
- As with beef, the projections assume that the TRQ that Russia imposed for pork in 2003 remains in effect until 2009. Although the TRQ initially lowered pork imports, Russia remains a major destination for competitively priced pork exports from the EU and Brazil as demand growth continues to exceed Russian meat producers' ability to respond. By 2016, Russia is projected to import about 250,000 tons more pork than in 2007, growing more than any other country.
- In China, increasing incomes boost per capita pork consumption and raise imports in the projections. However, China's pork production and exports also continue to rise but China's net pork exports rise only slightly during the coming decade.

Poultry imports 1/

Million metric tons



1/ Selected importers.

2/ EU-25 excludes intra-trade after 2002, EU-15 intra-trade before 2003, Slovenia before 1992.

Poultry meat imports by major importers are projected to increase by about 0.8 million tons (15 percent) from 2007 to 2016.

- Russia is expected to remain the world's largest poultry importer, with higher consumer income increasing demand for poultry products and offsetting slow population growth. However, the increase in demand is expected to be filled mostly by domestic production, and Russia's poultry imports are expected to decline slightly during the coming decade.
- In Mexico, strong economic growth raises poultry consumption and imports. Domestic poultry production continues to increase, but lags rising consumer demand. Although beef is the preferred meat among Mexico's consumers, consumption of poultry meats rises more rapidly because of its lower price.
- Poultry consumption growth in China is met by expanding domestic production and growing imports.
- Because of avian influenza, some major poultry-exporting countries such as Thailand and China will shift most of their exports to fully cooked products. Due to their higher costs, these cooked poultry products will be marketed to developed or high-income countries in Asia, Europe, and the Middle East.
- Poultry imports by Saudi Arabia and the Other North Africa and the Middle East region are projected to rise strongly. Outbreaks of avian influenza in some countries may slow growth in domestic production and increase reliance on imports to fill consumption needs.
- Rising consumer incomes increase reliance on larger poultry imports in a number of Central America and Caribbean countries. The Central America Free Trade Agreement is also expected to stimulate trade. Together with Mexico, these countries form one of the largest markets for poultry imports.

Table 34. Coarse grains trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million metric tons</i>												
Importers												
Former Soviet Union ¹	1.1	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5
Other Europe	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
European Union ²	3.5	3.7	3.4	3.8	4.1	4.2	4.4	4.5	4.7	4.8	5.0	5.0
North Africa & Middle East	28.1	28.0	28.5	28.5	29.0	29.6	30.1	30.6	31.1	31.6	32.2	32.8
Sub-Saharan Africa ³	2.9	1.7	1.6	1.7	1.7	1.8	1.8	1.9	2.0	2.1	2.1	2.2
Japan	19.8	19.5	19.5	19.4	19.4	19.3	19.3	19.3	19.2	19.1	19.1	19.0
South Korea	8.6	8.6	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
Taiwan	4.7	4.7	4.6	4.7	4.7	4.7	4.7	4.8	4.8	4.8	4.8	4.8
China	2.3	2.3	2.5	3.3	3.8	4.4	4.9	5.4	5.8	6.3	6.8	7.2
Other Asia & Oceania	5.2	4.6	4.3	4.2	4.3	4.4	4.5	4.7	4.8	5.0	5.1	5.4
Mexico	9.8	9.3	9.3	10.4	10.7	11.2	11.6	12.0	12.4	12.8	13.2	13.6
Central America & Caribbean	4.7	4.8	4.7	4.7	4.9	4.9	5.0	5.0	5.1	5.2	5.2	5.3
Brazil	1.2	0.9	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9
Other South America	7.2	7.1	6.7	6.8	6.9	7.0	7.1	7.1	7.2	7.2	7.2	7.2
Other foreign ⁴	3.6	4.9	4.4	5.2	6.3	6.4	6.5	6.6	6.8	6.9	7.1	7.3
United States	2.0	2.5	2.4	2.7	2.8	2.7	2.7	2.7	2.7	2.8	2.8	2.8
Total trade	105.4	104.2	103.0	106.3	109.6	111.7	113.8	115.7	117.8	120.1	122.1	124.2
<i>Exports, million metric tons</i>												
Exporters												
European Union ²	3.8	4.2	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
China	3.8	4.0	3.9	3.5	3.0	2.9	2.8	2.5	2.1	1.9	1.7	1.4
Argentina	9.0	12.0	13.5	16.5	18.0	18.5	19.0	19.5	20.1	20.6	21.1	21.7
Australia	5.7	2.9	5.2	5.4	5.5	5.5	5.6	5.6	5.6	5.7	5.7	5.8
Canada	4.1	3.5	2.8	3.4	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3
Republic of South Africa	0.8	0.9	1.5	1.7	1.9	2.1	2.2	2.4	2.5	2.6	2.7	2.8
Other Europe	2.4	2.5	2.5	2.8	3.0	3.2	3.4	3.5	3.7	3.9	4.0	4.2
Former Soviet Union ¹	8.4	9.4	9.5	9.5	9.8	10.2	10.5	10.6	10.7	10.8	10.8	10.8
Other foreign	7.4	4.3	6.6	8.2	9.3	8.2	7.4	7.2	7.4	7.6	7.5	7.6
United States	60.1	60.5	53.4	51.3	51.3	53.2	55.1	56.4	57.6	58.9	60.2	61.4
<i>Percent</i>												
U.S. trade share	57.1	58.1	51.9	48.2	46.8	47.6	48.4	48.7	48.9	49.1	49.3	49.5

1/ Covers FSU-12, includes intra-FSU trade.

2/ Covers EU-25, excludes intra-EU trade.

3/ Includes Republic of South Africa.

4/ Includes unaccounted.

The projections were completed in November 2006.

Table 35. Corn trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million metric tons</i>												
Importers												
European Union ¹	3.2	3.0	3.0	3.3	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.1
Former Soviet Union ²	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Egypt	4.5	4.8	4.4	4.2	4.1	4.2	4.3	4.3	4.4	4.5	4.5	4.6
Algeria	1.9	2.0	2.2	2.2	2.3	2.4	2.4	2.5	2.6	2.6	2.7	2.8
Morocco	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.8
Iran	2.3	2.5	2.7	2.5	2.5	2.6	2.7	2.7	2.8	2.8	2.9	3.0
Saudi Arabia	1.4	1.5	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8
Turkey	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other N. Africa & Middle East	4.8	5.0	4.9	5.0	5.2	5.3	5.4	5.5	5.6	5.7	5.8	6.0
Japan	16.6	16.5	16.3	16.2	16.2	16.1	16.1	16.0	16.0	15.9	15.9	15.8
South Korea	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.4
Taiwan	4.5	4.5	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.7	4.7
China	0.1	0.1	0.2	1.0	1.4	1.9	2.3	2.7	3.1	3.6	4.0	4.3
Indonesia	1.5	1.3	1.3	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5
Malaysia	2.5	2.6	2.6	2.7	2.7	2.8	2.9	3.0	3.1	3.1	3.2	3.4
Other Asia & Oceania	1.2	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Canada	2.0	2.8	2.0	2.8	3.9	4.0	4.1	4.2	4.4	4.5	4.7	4.9
Mexico	6.7	6.3	6.7	8.0	8.4	8.8	9.3	9.6	10.0	10.4	10.7	11.0
Central America & Caribbean	4.7	4.8	4.7	4.7	4.8	4.9	4.9	5.0	5.1	5.2	5.2	5.2
Brazil	1.0	0.8	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5
Other South America	6.7	6.7	6.2	6.3	6.4	6.5	6.5	6.6	6.6	6.7	6.7	6.7
Sub-Saharan Africa ³	2.3	1.3	1.3	1.3	1.3	1.4	1.4	1.5	1.6	1.7	1.7	1.8
Other foreign ⁴	0.5	2.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
United States	0.2	0.3	0.4	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total trade	79.0	80.8	78.1	81.1	84.0	85.7	87.4	88.9	90.7	92.5	94.0	95.7
<i>Exports, million metric tons</i>												
Exporters												
European Union ¹	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.7	4.0	3.9	3.5	3.0	2.9	2.8	2.5	2.1	1.9	1.7	1.4
Argentina	8.5	11.5	13.0	16.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0
Brazil	3.5	2.0	4.2	5.5	6.6	5.4	4.5	4.3	4.5	4.6	4.5	4.5
Republic of South Africa	0.8	0.9	1.5	1.7	1.9	2.1	2.2	2.3	2.5	2.6	2.7	2.8
Other Europe	1.9	2.2	2.2	2.5	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4
Former Soviet Union ²	2.5	1.8	2.0	2.4	2.6	2.8	2.9	2.9	2.9	2.9	2.8	2.7
Other foreign	3.4	2.0	2.2	2.5	2.6	2.6	2.7	2.7	2.7	2.6	2.6	2.6
United States	54.5	55.9	48.9	47.0	47.0	48.9	50.8	52.1	53.3	54.6	55.9	57.2
<i>Percent</i>												
U.S. trade share	69.1	69.2	62.6	57.9	56.0	57.1	58.2	58.6	58.8	59.1	59.4	59.7

1/ Covers EU-25, excludes intra-EU trade.

2/ Covers FSU-12, includes intra-FSU trade.

3/ Includes Republic of South Africa.

4/ Includes unaccounted.

The projections were completed in November 2006.

Table 36. Sorghum trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million metric tons</i>												
Importers												
Japan	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.4	1.5	1.5	1.4	1.4
Mexico	3.0	2.9	2.5	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.4	2.5
North Africa & Middle East	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
South America	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sub-Saharan Africa ¹	0.5	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other ²	0.3	0.2	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total trade	5.4	4.8	4.8	4.7	4.7	4.7	4.7	4.7	4.7	4.8	4.9	5.0
<i>Exports, million metric tons</i>												
Exporters												
Argentina	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Australia	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Other foreign	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
United States	4.9	4.2	4.1	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
<i>Percent</i>												
U.S. trade share	91.2	88.0	84.0	81.3	81.3	81.1	80.9	80.7	80.4	79.6	78.1	76.3

1/ Includes the Republic of South Africa.

2/ Includes unaccounted.

The projections were completed in November 2006.

Table 37. Barley trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million metric tons</i>												
Importers												
Former Soviet Union ¹	0.5	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7
Japan	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
South Korea	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Taiwan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	2.2	2.2	2.3	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.8
European Union ²	0.2	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8
Latin America ³	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
Algeria	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Saudi Arabia	6.7	6.0	6.3	6.3	6.4	6.4	6.4	6.4	6.3	6.3	6.3	6.3
Morocco	0.5	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Tunisia	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Republic of South Africa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Iran	1.1	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
Other N. Africa & M. East	2.4	2.5	2.7	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.2	3.3
Other foreign ⁴	1.6	0.1	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
United States	0.1	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total trade	18.4	15.9	17.5	17.8	18.2	18.6	19.0	19.3	19.6	19.9	20.2	20.6
<i>Exports, million metric tons</i>												
Exporters												
European Union ²	3.1	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Australia	5.3	2.7	4.9	4.9	5.0	5.0	5.1	5.1	5.1	5.1	5.2	5.2
Canada	2.3	1.5	1.4	2.0	2.1	2.3	2.4	2.5	2.5	2.6	2.7	2.7
Russia	1.7	2.5	2.7	2.1	1.9	1.8	1.8	1.8	1.8	1.7	1.6	1.6
Ukraine	4.0	4.7	4.0	4.2	4.4	4.6	4.8	4.9	5.0	5.1	5.2	5.3
Other Former Soviet Union ⁵	0.1	0.3	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8
Turkey	0.5	0.3	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4
Other foreign	0.8	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.1
United States	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
<i>Percent</i>												
U.S. trade share	3.3	2.7	2.5	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.1

1/ Covers FSU-12, includes intra-FSU trade.

2/ Covers EU-25, excludes intra-EU trade.

3/ Includes Mexico.

4/ Includes unaccounted.

5/ Covers FSU-12 except Russia and Ukraine, includes intra-FSU trade.

The projections were completed in November 2006.

Table 38. Wheat trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million metric tons</i>												
Importers												
Algeria	5.5	4.8	4.9	4.9	5.1	5.2	5.3	5.4	5.6	5.7	5.8	6.0
Egypt	7.8	7.0	7.7	8.0	8.3	8.7	9.1	9.2	9.4	9.5	9.6	9.7
Morocco	2.4	1.9	2.4	2.5	2.7	2.7	2.8	2.9	3.0	3.0	3.1	3.2
Iran	0.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Iraq	4.8	3.5	4.0	4.1	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8
Tunisia	1.2	1.2	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.7	1.7
Other N. Africa & Middle East	9.0	8.4	8.9	9.1	9.4	9.6	9.8	9.9	10.1	10.3	10.4	10.6
Sub-Saharan Africa ¹	13.0	12.2	13.0	13.5	13.9	14.3	14.8	15.2	15.7	16.1	16.6	17.2
Mexico	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6
Central America & Caribbean	3.4	3.5	3.5	3.6	3.7	3.7	3.7	3.8	3.8	3.9	3.9	4.0
Brazil	6.5	7.3	6.8	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.9
Other South America	6.6	5.9	6.2	6.3	6.4	6.4	6.5	6.6	6.6	6.7	6.7	6.7
European Union ²	7.6	6.8	7.2	7.6	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.2
Other Europe	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Former Soviet Union ³	4.7	4.0	4.9	5.3	5.3	5.5	5.6	5.7	5.7	5.7	5.7	5.7
Japan	5.5	5.5	5.5	5.5	5.5	5.4	5.4	5.4	5.3	5.3	5.2	5.2
South Korea	3.9	3.6	4.1	4.2	4.4	4.5	4.7	4.8	4.9	5.0	5.1	5.2
Philippines	3.0	2.7	2.9	3.0	3.1	3.2	3.2	3.3	3.4	3.5	3.6	3.7
Indonesia	5.0	4.8	5.1	5.2	5.3	5.4	5.5	5.7	5.8	5.9	6.1	6.2
China	1.0	0.7	1.0	1.3	1.6	1.8	2.0	2.1	2.2	2.4	2.5	2.6
Bangladesh	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Malaysia	1.2	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6
Thailand	1.2	1.2	1.2	1.3	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.7
Vietnam	1.2	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.9
Pakistan	1.0	0.6	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
Other Asia & Oceania	4.9	10.5	6.0	5.9	5.9	6.0	6.0	6.1	6.2	6.3	6.5	6.6
Other foreign	5.4	-0.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
United States	2.2	2.9	2.7	2.9	2.9	3.0	3.0	3.1	3.1	3.3	3.3	3.4
Total trade	115.5	109.1	113.5	117.5	120.7	123.7	126.8	129.4	132.0	134.6	137.1	140.1
<i>Exports, million metric tons</i>												
Exporters												
European Union ²	15.0	16.0	16.0	16.0	16.0	16.0	16.2	16.3	16.4	16.5	16.6	16.6
Canada	16.1	20.5	18.0	17.6	17.7	17.6	17.5	17.2	17.2	17.2	17.1	17.1
Australia	16.0	10.5	14.5	16.5	17.2	17.9	18.6	19.3	20.0	20.7	21.4	22.1
Argentina	8.2	8.5	10.5	11.0	12.0	12.4	13.0	13.2	13.1	13.0	13.0	13.4
Russia	10.7	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5
Ukraine	6.5	3.5	4.7	5.7	6.5	7.3	7.7	8.3	8.7	9.2	9.6	9.9
Other Former Soviet Union ⁴	3.2	5.2	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0
Other Europe	2.0	1.6	1.6	2.1	2.3	2.4	2.5	2.8	3.0	3.3	3.6	3.9
India	0.8	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
China	1.4	2.5	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.7	0.6
Turkey	3.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Other foreign	5.0	4.7	4.5	4.4	4.4	4.3	4.2	4.2	4.2	4.1	4.1	4.1
United States	27.5	25.2	25.9	25.9	25.9	26.5	27.2	27.9	28.6	29.3	29.9	30.6
<i>Percent</i>												
U.S. trade share	23.8	23.1	22.8	22.0	21.4	21.5	21.5	21.6	21.7	21.7	21.8	21.9

1/ Includes Republic of South Africa.

2/ Covers EU-25, excludes intra-EU trade.

3/ Covers FSU-12, includes intra-FSU trade.

4/ Covers FSU-12 except Russia and Ukraine, includes intra-FSU trade.

The projections were completed in November 2006.

Table 39. Soybean trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million metric tons</i>												
Importers												
European Union ¹	13.8	14.1	13.5	13.6	13.5	13.4	13.2	13.1	13.0	12.9	12.6	12.4
Japan	4.0	4.1	4.1	4.1	4.1	4.1	4.2	4.2	4.2	4.2	4.2	4.2
South Korea	1.2	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1
Taiwan	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Mexico	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.5	4.6	4.7	4.8	4.9
Former Soviet Union ²	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Other Europe	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7
China	28.3	32.0	35.9	38.4	40.9	43.8	46.5	48.7	50.8	52.9	55.1	57.2
Malaysia	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9
Indonesia	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9
Other	8.7	10.3	10.9	11.4	12.0	12.6	13.1	13.7	14.3	14.9	15.4	16.0
Total imports	64.4	70.6	74.8	78.2	81.3	84.8	88.2	91.1	93.9	96.7	99.4	102.0
<i>Exports, million metric tons</i>												
Exporters												
Argentina	7.3	7.0	6.5	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1
Brazil	25.9	25.9	29.9	37.4	44.4	47.6	50.5	53.1	55.3	57.7	59.7	62.0
Other South America	3.3	4.1	4.3	4.5	4.8	5.0	5.3	5.5	5.8	6.1	6.4	6.7
China	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other foreign	1.8	2.1	2.4	2.2	2.3	2.4	2.5	2.7	2.8	2.9	3.1	3.3
United States	25.8	31.2	31.3	27.2	23.0	23.0	23.1	23.1	23.4	23.4	23.7	23.7
Total exports	64.4	70.6	74.8	78.2	81.3	84.8	88.2	91.1	93.9	96.7	99.4	102.0
<i>Percent</i>												
U.S. trade share	40.0	44.2	41.9	34.8	28.3	27.1	26.2	25.4	24.9	24.2	23.8	23.2

1/ Covers EU-25, excludes intra-EU trade.

2/ Covers FSU-12, includes intra-FSU trade.

The projections were completed in November 2006.

Table 40. Soybean meal trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million metric tons</i>												
Importers												
European Union ¹	22.9	22.7	22.9	23.3	23.6	23.9	24.2	24.5	24.8	25.1	25.4	25.7
Former Soviet Union ²	0.7	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.4
Other Europe	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9
Canada	1.3	1.4	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.9
Japan	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7
Southeast Asia	8.0	8.5	8.8	9.2	9.5	9.9	10.2	10.5	10.9	11.3	11.6	12.0
Latin America	7.0	7.4	7.7	8.0	8.4	8.7	9.0	9.3	9.7	10.0	10.3	10.6
North Africa & Middle East	4.0	4.8	5.1	5.4	5.8	6.1	6.4	6.7	7.0	7.3	7.7	8.0
Other	5.1	5.2	5.4	5.6	6.0	6.2	6.4	6.6	6.8	6.9	7.0	7.2
Total imports	51.3	52.9	54.5	56.2	57.9	59.6	61.2	62.9	64.5	66.1	67.7	69.4
<i>Exports, million metric tons</i>												
Exporters												
Argentina	24.3	26.3	27.6	28.2	29.3	30.4	31.2	32.0	32.8	33.5	34.1	34.7
Brazil	12.9	12.6	12.9	13.1	13.8	14.2	14.8	15.7	16.4	17.2	18.2	19.3
Other South America	1.6	1.7	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.1	2.1
China	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
India	3.7	3.0	2.8	2.8	2.7	2.7	2.6	2.6	2.5	2.5	2.5	2.4
European Union ¹	0.7	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Other foreign	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
United States	7.2	7.7	8.2	9.0	9.2	9.3	9.5	9.5	9.5	9.6	9.6	9.7
Total exports	51.3	52.9	54.5	56.2	57.9	59.6	61.2	62.9	64.5	66.1	67.7	69.4
<i>Percent</i>												
U.S. trade share	14.1	14.6	15.0	16.1	15.8	15.5	15.5	15.1	14.8	14.5	14.2	14.0

1/ Covers EU-25, excludes intra-EU trade.

2/ Covers FSU-12, includes intra-FSU trade.

The projections were completed in November 2006.

Table 41. Soybean oil trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million metric tons</i>												
Importers												
China	1.5	1.7	1.6	1.7	1.7	1.8	1.8	1.9	2.1	2.2	2.3	2.4
India	1.7	1.9	1.8	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.1
Other Asia	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.3
Latin America	1.4	1.4	1.4	1.5	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8
North Africa & Middle East	2.0	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.5	2.5	2.6
European Union ¹	0.7	0.9	0.9	1.0	1.0	1.2	1.4	1.5	1.7	1.8	2.0	2.1
Former Soviet Union & Other Europe ²	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Other	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1
Total imports	9.3	9.9	9.9	10.0	10.3	10.8	11.2	11.7	12.2	12.6	13.0	13.5
<i>Exports, million metric tons</i>												
Exporters												
Argentina	5.6	5.9	6.0	6.2	6.4	6.7	6.9	7.1	7.3	7.4	7.6	7.7
Brazil	2.1	2.3	2.2	2.2	2.3	2.5	2.7	3.0	3.3	3.5	3.8	4.1
European Union ¹	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other foreign	0.9	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
United States	0.5	0.6	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3
Total exports	9.3	9.9	9.9	10.0	10.3	10.8	11.2	11.7	12.2	12.6	13.0	13.5
<i>Percent</i>												
U.S. trade share	5.6	5.7	4.5	4.0	3.1	2.9	3.1	3.0	2.9	2.8	2.6	2.4

1/ Covers EU-25, excludes intra-EU trade.

2/ Includes intra-FSU trade.

The projections were completed in November 2006.

Table 42. Rice trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million metric tons</i>												
Importers												
Canada	0.34	0.35	0.36	0.36	0.37	0.37	0.38	0.39	0.39	0.40	0.40	0.41
Mexico	0.60	0.60	0.64	0.67	0.68	0.71	0.73	0.75	0.77	0.79	0.81	0.83
Central America/Caribbean	1.60	1.76	1.77	1.80	1.84	1.85	1.88	1.92	1.95	1.99	2.01	2.03
Brazil	0.60	0.75	0.85	0.90	0.95	1.00	1.05	1.10	1.05	1.00	0.95	0.90
Other South America	0.31	0.38	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45
European Union ¹	0.93	0.93	1.11	1.12	1.15	1.19	1.23	1.26	1.28	1.31	1.34	1.37
Former Soviet Union ²	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Other Europe	0.22	0.22	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.21
Bangladesh	0.70	0.60	0.70	0.75	0.81	0.89	0.98	1.08	1.19	1.31	1.44	1.57
China	0.70	0.80	0.88	0.92	1.02	1.08	1.12	1.17	1.25	1.33	1.41	1.49
Japan	0.70	0.65	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
South Korea	0.40	0.27	0.27	0.29	0.31	0.33	0.35	0.37	0.39	0.41	0.41	0.41
Indonesia	0.90	0.60	0.85	0.95	1.05	1.16	1.27	1.36	1.52	1.65	1.78	1.90
Malaysia	0.85	0.85	0.74	0.73	0.73	0.73	0.73	0.73	0.74	0.75	0.76	0.77
Philippines	1.90	1.75	1.70	1.65	1.62	1.65	1.65	1.65	1.68	1.70	1.74	1.81
Other Asia & Oceania	2.25	2.49	2.48	2.47	2.49	2.51	2.53	2.56	2.59	2.61	2.63	2.65
Iraq	1.20	1.20	1.06	1.10	1.14	1.18	1.21	1.25	1.28	1.32	1.35	1.38
Iran	1.20	0.90	0.98	0.97	1.00	1.02	1.08	1.12	1.18	1.25	1.31	1.37
Saudi Arabia	1.36	1.00	1.13	1.31	1.33	1.36	1.38	1.41	1.43	1.46	1.48	1.50
Other N. Africa & M. East	1.48	1.56	1.54	1.54	1.56	1.60	1.64	1.67	1.71	1.74	1.79	1.82
Sub-Saharan Africa ³	6.56	6.60	6.80	7.01	7.15	7.27	7.40	7.54	7.69	7.84	8.02	8.20
Republic of South Africa	0.85	0.80	0.86	0.86	0.87	0.88	0.88	0.89	0.90	0.91	0.92	0.92
Other foreign ⁴	1.15	1.95	1.96	1.96	1.95	1.95	1.96	1.96	1.96	1.96	1.96	1.96
United States	0.54	0.57	0.58	0.61	0.62	0.64	0.66	0.68	0.70	0.72	0.74	0.77
Total imports	27.86	28.10	29.08	29.77	30.47	31.19	31.95	32.72	33.51	34.31	35.13	35.95
<i>Exports, million metric tons</i>												
Exporters												
Australia	0.33	0.15	0.15	0.22	0.28	0.30	0.32	0.35	0.37	0.40	0.41	0.42
Argentina	0.35	0.45	0.44	0.46	0.46	0.48	0.50	0.52	0.55	0.57	0.59	0.61
Other South America	1.30	1.18	1.11	1.13	1.14	1.15	1.16	1.19	1.23	1.26	1.30	1.35
European Union ¹	0.18	0.15	0.18	0.20	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
China	1.10	1.00	0.98	1.00	0.96	0.97	1.00	1.02	1.03	1.04	1.06	1.08
India	3.80	4.30	4.58	4.61	4.73	4.90	5.08	5.27	5.40	5.60	5.80	6.00
Pakistan	2.90	2.90	2.86	2.95	3.03	3.04	3.04	3.04	3.04	3.04	3.05	3.06
Thailand	7.30	8.25	8.92	9.09	9.42	9.75	10.10	10.40	10.80	11.20	11.55	11.95
Vietnam	5.00	4.70	4.61	4.84	4.97	5.14	5.27	5.39	5.49	5.58	5.67	5.75
Egypt	1.00	0.90	0.83	0.78	0.73	0.69	0.66	0.64	0.61	0.57	0.54	0.51
Other foreign	0.96	1.08	1.05	1.08	1.12	1.14	1.16	1.18	1.20	1.22	1.26	1.29
United States	3.65	3.05	3.37	3.40	3.40	3.40	3.43	3.50	3.56	3.61	3.65	3.72
Total exports	27.86	28.11	29.08	29.77	30.47	31.19	31.95	32.72	33.51	34.31	35.13	35.95
<i>Percent</i>												
U.S. trade share	13.1	10.9	11.6	11.4	11.2	10.9	10.7	10.7	10.6	10.5	10.4	10.3

1/ Covers EU-25, excludes intra-EU trade.

2/ Covers FSU-12, includes intra-FSU trade.

3/ Excludes Republic of South Africa

4/ Includes unaccounted.

The projections were completed in November 2006.

Table 43. All cotton trade long-term projections

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<i>Imports, million bales</i>												
Importers												
European Union ¹	2.3	2.1	1.8	1.7	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.3
Former Soviet Union ²	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Indonesia	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.4	2.3	2.4
Thailand	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.3
India	0.4	0.6	0.6	0.6	0.8	0.8	0.9	1.0	1.1	1.1	1.1	1.1
Brazil	0.3	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Other Europe	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other Asia & Oceania	3.8	3.9	3.9	3.9	4.1	4.2	4.4	4.6	4.8	5.0	5.1	5.3
Pakistan	1.8	2.3	2.7	2.4	2.4	2.4	2.5	2.8	3.1	3.4	3.7	4.1
Japan	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
South Korea	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8
China	19.3	17.5	21.3	21.4	22.1	22.7	23.1	23.6	23.8	23.9	24.2	24.2
Taiwan	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Turkey	3.4	2.6	2.8	2.7	2.7	2.7	2.8	2.9	2.9	3.0	3.0	3.1
Mexico	1.7	1.4	1.3	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.1
Other	2.5	2.5	2.5	2.4	2.4	2.4	2.5	2.5	2.5	2.6	2.6	2.6
Total imports	44.2	42.0	46.0	45.7	46.4	46.9	48.0	49.3	50.1	50.9	51.4	51.9
<i>Exports, million bales</i>												
Exporters												
Former Soviet Union ²	7.0	6.8	7.2	6.9	6.8	6.8	6.9	7.0	7.0	7.2	7.1	7.2
Australia	2.9	2.4	2.3	2.5	2.8	3.0	3.2	3.4	3.5	3.6	3.6	3.7
Argentina	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4
Pakistan	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
India	4.0	4.2	5.0	4.6	4.5	4.6	4.6	4.4	4.1	3.8	3.4	3.0
Egypt	0.5	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Brazil	2.0	1.4	2.3	3.0	3.2	3.3	3.4	3.7	3.8	4.1	4.3	4.5
Other Latin America	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Sub-Saharan Africa ³	6.5	6.3	6.8	6.8	6.9	6.9	7.1	7.4	7.8	8.0	8.5	8.7
Other foreign	3.5	2.8	3.1	2.9	3.0	3.0	3.0	3.1	3.2	3.3	3.3	3.3
United States	18.0	16.2	17.6	17.2	17.4	17.5	17.9	18.3	18.6	18.8	19.0	19.2
Total exports	45.4	41.5	45.5	45.2	45.9	46.4	47.5	48.8	49.6	50.4	50.9	51.4
<i>Percent</i>												
U.S. trade share	39.8	39.0	38.6	38.1	37.8	37.7	37.7	37.5	37.5	37.4	37.4	37.4

1/ Covers EU-25, excludes intra-EU trade.

2/ Covers FSU-12, includes intra-FSU trade.

3/ Includes Republic of South Africa.

The projections were completed in November 2006.

Table 44. Beef trade long-term projections

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Imports, thousand metric tons, carcass weight</i>												
Importers												
Japan	700	693	765	785	801	813	825	836	846	856	866	876
South Korea	243	193	230	263	280	293	309	329	348	363	384	400
Taiwan	92	98	100	101	102	106	108	110	113	116	119	121
Philippines	140	142	148	168	180	189	201	208	215	222	229	237
European Union ¹	599	540	560	650	650	650	651	651	651	650	650	650
Russia	993	840	905	989	1,005	1,014	1,023	1,039	1,046	1,059	1,070	1,074
Other Europe	137	119	115	178	187	193	197	204	209	214	218	221
Egypt	214	225	240	273	284	291	303	308	314	320	326	332
Mexico	325	365	375	450	506	546	588	623	666	699	734	767
Canada	133	150	160	179	190	195	200	210	216	224	229	233
United States	1,632	1,439	1,524	1,527	1,537	1,548	1,559	1,570	1,581	1,593	1,605	1,617
Major importers	5,208	4,804	5,122	5,563	5,721	5,837	5,963	6,087	6,204	6,316	6,429	6,527
<i>Exports, thousand metric tons, carcass weight</i>												
Exporters												
Australia	1,413	1,420	1,495	1,477	1,459	1,410	1,385	1,376	1,379	1,386	1,410	1,414
New Zealand	589	540	570	568	561	557	556	553	552	550	547	545
Other Asia	719	840	885	899	927	945	974	1,006	1,038	1,059	1,077	1,099
European Union ¹	255	200	200	215	252	273	285	297	309	327	346	365
Argentina	762	500	600	554	543	527	523	516	509	498	491	474
Brazil	1,867	1,945	1,985	1,992	2,049	2,127	2,190	2,243	2,283	2,311	2,338	2,355
Canada	551	455	440	433	438	462	484	504	524	541	556	568
United States	317	523	680	706	741	776	811	846	881	925	963	1,024
Major exporters	6,473	6,423	6,855	6,844	6,968	7,076	7,209	7,342	7,475	7,596	7,729	7,844

1/ Covers EU-25, excludes intra-EU trade.

The projections were completed in November 2006.

Table 45. Pork trade long-term projections

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Imports, thousand metric tons, carcass weight</i>												
Importers												
Japan	1,339	1,250	1,228	1,273	1,282	1,295	1,309	1,323	1,337	1,352	1,368	1,385
China	48	36	37	38	39	42	44	46	48	51	53	54
Hong Kong	305	310	317	331	340	350	359	370	381	393	406	419
South Korea	328	254	220	257	282	301	314	321	328	337	345	352
Russia	765	800	825	860	893	925	959	981	1,006	1,031	1,055	1,076
Mexico	420	450	460	488	505	532	554	572	592	615	635	657
Canada	140	140	145	149	152	154	157	160	163	166	169	172
United States	465	463	467	473	480	489	498	508	518	529	539	550
Major importers	3,810	3,703	3,699	3,868	3,973	4,088	4,194	4,281	4,372	4,475	4,569	4,665
<i>Exports, thousand metric tons, carcass weight</i>												
Exporters												
Brazil	761	540	570	584	593	615	654	687	709	751	787	816
Canada	1,084	1,100	1,120	1,135	1,129	1,118	1,108	1,090	1,081	1,079	1,082	1,084
Mexico	59	65	70	72	74	77	79	82	84	87	89	92
European Union ¹	1,357	1,400	1,400	1,458	1,495	1,515	1,534	1,561	1,583	1,593	1,605	1,617
China	502	500	510	529	545	558	565	574	582	586	589	594
United States	1,209	1,346	1,402	1,444	1,465	1,487	1,510	1,532	1,555	1,579	1,602	1,626
Major exporters	4,972	4,951	5,072	5,221	5,301	5,370	5,450	5,525	5,595	5,673	5,754	5,829

1/ Covers EU-25, excludes intra-EU trade.

The projections were completed in November 2006.

Table 46. Poultry trade long-term projections 1/

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Imports, thousand metric tons, ready to cook</i>												
Importers												
Russia	1,332	1,336	1,251	1,212	1,252	1,259	1,268	1,278	1,278	1,256	1,235	1,202
European Union ²	625	710	760	610	614	617	620	623	626	629	632	635
Other Europe	183	157	147	150	147	150	155	160	164	169	175	181
Canada	107	110	120	121	123	125	127	129	131	132	134	136
Mexico	559	590	624	645	665	685	705	725	745	765	790	810
Central America/Caribbean	497	510	514	528	537	541	542	547	552	552	559	565
Japan	748	740	725	724	725	731	737	747	748	755	759	760
Hong Kong	222	234	237	248	252	255	259	263	266	270	274	277
China	219	370	430	461	486	506	524	540	556	575	590	602
South Korea	59	70	75	86	91	98	105	112	120	129	137	145
Saudi Arabia	484	434	470	492	510	529	545	563	580	598	615	632
Other N. Africa & M. East	336	232	349	347	374	402	429	458	489	519	555	592
Major importers	5,371	5,493	5,702	5,625	5,774	5,896	6,015	6,144	6,255	6,349	6,454	6,537
<i>Exports, thousand metric tons, ready to cook</i>												
Exporters												
European Union ²	943	770	835	911	941	958	961	975	978	974	972	965
Brazil	2,900	2,653	2,710	2,716	2,796	2,900	3,005	3,110	3,215	3,320	3,425	3,530
China	331	350	365	381	394	388	384	382	381	376	380	383
Thailand	240	280	280	292	314	325	332	342	345	342	343	343
United States	2,678	2,762	2,833	2,807	2,840	2,881	2,930	2,970	3,015	3,057	3,101	3,146
Major exporters	7,092	6,815	7,023	7,108	7,284	7,451	7,612	7,780	7,935	8,069	8,221	8,367

1/ Broilers and turkeys only.

2/ Covers EU-25, excludes intra-EU trade.

The projections were completed in November 2006.

List of Tables

	Page
Table 1. U.S. macroeconomic assumptions.....	17
Table 2. Global real GDP growth assumptions	18
Table 3. Population growth assumptions.....	19
Table 4. Summary policy variables for major field crops, 2005-2016.....	36
Table 5. Conservation Reserve Program acreage assumptions	36
Table 6. Planted and harvested acreage for major field crops, long-term projections	37
Table 7. Selected supply, use, and price variables for major field crops, long-term projections	38
Table 8. U.S. corn long-term projections	39
Table 9. U.S. sorghum long-term projections	40
Table 10. U.S. barley long-term projections	41
Table 11. U.S. oats long-term projections	42
Table 12. U.S. wheat long-term projections.....	43
Table 13. U.S. soybean and products long-term projections.....	44
Table 14. U.S. rice long-term projections, rough basis	45
Table 15. U.S. upland cotton long-term projections.....	46
Table 16. U.S. sugar long-term projections.....	47
Table 17. Flue-cured tobacco long-term projections.....	48
Table 18. Burley tobacco long-term projections	48
Table 19. Horticultural crops long-term projections: Production, values, and prices, calendar years	49
Table 20. Horticultural crops long-term projections: Exports and imports, fiscal years.....	50
Table 21. Per capita meat consumption, retail weight.....	57
Table 22. Consumer expenditures for meats	57
Table 23. Beef long-term projections	58
Table 24. Pork long-term projections	59
Table 25. Young chicken long-term projections	59
Table 26. Turkey long-term projections.....	60
Table 27. Egg long-term projections	60
Table 28. Dairy long-term projections	61
Table 29. Farm receipts, expenses, and incomes in nominal dollars.....	68
Table 30. Farm receipts, expenses, and incomes in 1996 dollars.....	68
Table 31. Consumer food price indexes and food expenditures, long-term projections	69
Table 32. Changes in consumer food prices, long-term projections	69
Table 33. Summary of U.S. agricultural trade long-term projections, fiscal years	70
Table 34. Coarse grains trade long-term projections.....	100
Table 35. Corn trade long-term projections.....	101
Table 36. Sorghum trade long-term projections	101
Table 37. Barley trade long-term projections	102
Table 38. Wheat trade long-term projections	103
Table 39. Soybean trade long-term projections.....	104
Table 40. Soybean meal trade long-term projections	105
Table 41. Soybean oil trade long-term projections.....	105
Table 42. Rice trade long-term projections	106
Table 43. All cotton trade long-term projections	107
Table 44. Beef trade long-term projections	108
Table 45. Pork trade long-term projections	109
Table 46. Poultry trade long-term projections.....	109

Feature Table

Corn and soybean projections under alternative biofuel policy assumptions	25
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